



Freeport-McMoRan Oil & Gas
201 S. Broadway
Orcutt, CA 93455

Telephone: 805-739-9111

July 16, 2014

Mr. Jared Blumenfeld
Regional Administrator
EPA, Region 9
NPDES/DMR, WTR-7
75 Hawthorne Street
San Francisco, CA 94105-3901

Re: Discharge Monitoring Report - Platform Harvest NPDES Permit CAG280000

Dear Mr. Blumenfeld:

This Discharge Monitoring Report for Platform Harvest represents the reporting period for April, May, and June 2014.

Included are the following attachments:

Attachment 1 is comprised of the EPA DMR forms (3320-1).

Attachment 2 is a listing of the chemical inventory for miscellaneous discharges (specifically non-contact cooling and fire water) as required by II.F. of the subject permit.

Attachment 3 is the undissociated sulfide conversion calculation table in accordance with II.B.1.a. of the permit.

Attachment 4 provides pre-dilution and post dilution chlorine results for non-contact cooling and fire water discharges in accordance with Appendix D of the permit.

Attachment 5 summarizes miscellaneous sampling results for extra testing that we initiated. All results were derived by an EPA approved test method in accordance with Part III.D. of the permit.

Attachment 6 includes copies of the official state certified lab reports associated with monitoring. Also included are the laboratory quality control reports for the lab reports and other required information (MLs, MDLs, EPA Methods, chains-of-custody, sample dates, etc.).

The following is a brief summary of some of the monitoring and reporting parameters affecting the various discharges:

Drilling: (Discharge No. 001)

There were no drilling activities during this quarter.

Produced Water: (Discharge No. 002)

Produced water was discharged throughout this reporting quarter. Weekly Oil & Grease results are included in the DMR as end of pipe values.

An EPA Plumes UM dilution of 3667:1 was derived using the average flow rate from the previous DMR period, as defined in the permit. This dilution was applied to the monthly and annual testing results and the numeric values reported in the DMR are post dilution values for comparison to the permit limits listed in the permit under Appendix B.

Well Treatment, Completion and Workover Fluids (Discharge No 003)

There were no well treatment, completion and workover fluid jobs performed during this quarter.

Sanitary and Domestic Waste (005):

The required annual Marine Sanitation Device (MSD) inspection was completed on May 21, 2014. The inspection included a chlorine test to ensure proper operation and chlorine results are included in the DMR. The MSD is in good condition and operating properly. A full inspection report is available upon request.

Non-Contact Cooling Water and Fire Water: (Discharge No. 008, 009)

Seawater is slightly chlorinated as it is pumped up onto the platform for both the non-contact cooling water loop and the fire water system as needed. Attachment 4 summarizes the official quarterly chlorine results including post dilution and end of pipe results.

Quarterly testing results and the numeric values reported in the DMR for chlorine are post dilution values for comparison to the permit limits listed in the permit, Appendix C.

The majority of the fire water that is discharged occurs once per week during a short fire water pump test. Separate EPA Plumes UM dilution models were run on the fire water and the non-contact cooling water systems and have been applied to the post dilution values reported in the DMR.

Mr. Blumenfeld
July 16, 2014
Page 3 of 4

FM O&G uses a contractor to collect NPDES compliance monitoring samples at our offshore platforms. EPA sampling, preservation and documentation protocol is a strict requirement of our monitoring program.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations. See 18 U.S.C & 1001 and 33 U.S.C. & 1319. (Penalties under these statutes may include fines up to \$10,000 and or maximum imprisonment of between 6 months and 5 years)

If you should have any questions or require additional information, please contact me at (805) 934-8220.

Sincerely,



David Rose
Manager
Environmental, Health and Safety

Attachments

cc: Ms. Susan Zaleski, Bureau of Ocean Energy Management
Ms. Alison Dettmer, California Coastal Commission
Mr. James Salmons, Bureau of Safety Environmental Enforcement
Platform Hermosa Foremen
S.G. Lawry, LTS Environmental, Inc.

Attachment 1

EPA DMR

PERMIT NO. CAG280000

Freport-McMoRan Oil & Gas LLC
201 S. Broadway
Orcutt, CA 93455

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

WELL DISCHARGE MONITORING REPORT (Well DMR)

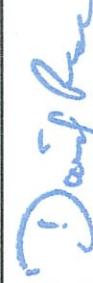
CAG280000
PERMIT NO.
001
DISCHARGE NO.

Approved Form
OMB No. 2000-0015

PLATFORM HARVEST [OCIS P-0315]
LOCATION: 34°28'06"N, 120°40'51"W

MONITORING PERIOD					
YR	MO	DAY	YR	MO	DAY
From:	14	04	To:	14	06

DRILLING FLUIDS AND DRILL CUTTINGS (001)

PARAMETER (32-37)	Quantity or Loading	Quality or Concentration			NO. EX.	Frequency Analysis	Sample Type	
		Average	Maximum	Units				Minimum
DRILLING FLUIDS VOLUME Well # N/A	Sample Measurement Permit Requirement	No Discharge	Barrels/ Well					
April	Report							
Well # N/A	Sample Measurement Permit Requirement	No Discharge	Barrels/ Well					
May	Report							
Well # N/A	Sample Measurement Permit Requirement	No Discharge	Barrels/ Well					
June	Report							
Quarterly Total	Sample Measurement Permit Requirement	0	Barrels/ Quarter					
04/01/14 - 06/30/14	Report							
Annual Cumulative Volume Limit ¹	Sample Measurement Permit Requirement	0	Barrels/ Year					
03/01/14 - 02/28/15	80,000							
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED BASED ONLY ON MY INQUIRY OR THE PERSONNEL WHO MANAGE THE SYSTEM, OR IN THE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION. THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS. SEE 46 U.S.C. § 101 AND 33 U.S.C. § 1319. PENALTIES UNDER THESE STATUTES MAY INCLUDE FINES UP TO \$100,000 AND CRIMINAL IMPRISONMENT FOR BETWEEN 6 MONTHS AND 5 YEARS.						Telephone	Date
David Rose Manager, Environmental, Health and Safety							(805) 934-8220	07 22 2014
TYPED OR PRINTED							Signature of PRINCIPAL EXECUTIVE OFFICER or AUTHORIZED AGENT	Area Code Number
COMMENT AND EXPLANATION OF ANY VIOLATION (Reference all attachments here.)							MONTH/DAY/YEAR	

¹ Annual cumulative volume limit is applied to the cumulative volumes for the period of March 1, 2014 through February 28, 2015.

EPA Form 3320-1 (Rev.9-88) Previous editions may be used.

(Replaces EPS Form T-40 which may not be used.)

File: DMR001.xls Pg 1 of 21

Freeport-McMoRan Oil & Gas LLC
201 S. Broadway
Orcutt, Ca 93455

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

WELL DISCHARGE MONITORING REPORT (Well DMR)

CAG280000
PERMIT NO.
DISCHARGE NO.

Approved Form
OMB No. 2000-0015

PLATFORM HARVEST (OCS P-0315)
LOCATION: 34°28'06"N, 120°40'51"W

MONITORING PERIOD

YR	MO	DAY	YR	MO	DAY
From:	14	04	01	To:	14 06 30

NOTE: Read Instructions before completing this form.
DRILLING FLUIDS AND DRILL CUTTINGS (001)

PARAMETER		Quantity or Loading			Quality or Concentration			NO. EX.	Frequency Analysis	Sample Type
		Average	Maximum	Units	Minimum	Average	Maximum			
DRILL CUTTINGS VOLUME										
Well # N/A	Sample	Measurement	No Discharge	Barrels/Month						
Well # N/A	Permit	Requirement	Report							
Well # N/A	Sample	Measurement	No Discharge	Barrels/Month						
Well # N/A	Permit	Requirement	Report							
Well # N/A	Sample	Measurement	No Discharge	Barrels/Month						
Well # N/A	Permit	Requirement	Report							
Annual Cumulative Volume Limit ¹	Sample	Measurement	0	Barrels/Year				0		
03/01/14 - 02/28/15	Permit	Requirement	25,000	# Days Sheen Observed	No Discharge					
DRILL FLUIDS/CUTTINGS Free Oil										
Well # N/A	Sample	Measurement	No Discharge	# Days Sheen Observed	No Discharge					
Well # N/A	Permit	Requirement	Report							
Well # N/A	Sample	Measurement	No Discharge	# Days Sheen Observed	No Discharge					
Well # N/A	Permit	Requirement	Report							
Well # N/A	Sample	Measurement	No Discharge	# Days Sheen Observed	No Discharge					
Well # N/A	Permit	Requirement	Report							
Well # N/A	Sample	Measurement	No Discharge	# Days Sheen Observed	No Discharge					
Well # N/A	Permit	Requirement	Report							
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	CERTIFY UNDER PENALTY OF PERJURY THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ENSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED BASED ONLY ON INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR OBTAINING THE INFORMATION. THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWINGLY VIOLATING SEE 18 U.S.C. 101 AND 33 U.S.C. 1318. SPECIALLY UNDER THESE STATUTES MAY INCLUDE FINES UP TO \$10,000 AND OR MAXIMUM IMPRISONMENT OF TWENTY (20) YEARS.									
David Rose Manager, Environmental, Health and Safety	<i>David Rose</i>									
COMMENT AND EXPLANATION OF ANY VIOLATION [Reference all attachments here.]	TYPED OR PRINTED									
	Signature of PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT									
	At Sea Code Number MONTH/DAY/YEAR									

¹ Annual cumulative volume limit is applied to the cumulative volumes for the period of March 1, 2014 through February 28, 2015.

Freeport-McMoRan Oil & Gas LLC
201 S. Broadway
Orcutt, CA 93455

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
WELL DISCHARGE MONITORING REPORT (Well DMR)

CAG280000	001
PERMIT NO.	DISCHARGE NO.

PLATFORM HARVEST (DCS P-0315)
LOCATION: 34°28'06"N, 120°40'51"W

MONITORING PERIOD

YR	MO	DAY	YR	MO	DAY
From:	14	04	01	To:	14 06 30

Approved Form
OMB No. 2000-0015

DRILLING FLUIDS AND DRILL CUTTINGS (001)

PARAMETER	Quantity or Loading			Quality or Concentration		NO. EX.	Frequency Analysis	Sample Type
	Average	Maximum	Units	Maximum	Units			
DRILLING FLUIDS	Sample							
Toxicity	Measurement			N/A				
Well No.	Permit			LC50 > 3% SPP			% by Volume	(0-80%) Well Footage
DRILLING FLUIDS	Sample							
Toxicity	Measurement			N/A			% by Volume	(80-100%) Well Footage
Well No.	Permit			LC50 > 3% SPP			Grab	Grab
BARITE MERCURY	Sample							
Measurement				N/A			mg / kg	
Permit				1 mg / kg			Stock Barite	
Requirement				N/A			Grab	Grab
BARITE CADMIUM	Sample							
Measurement				3 mg / kg			Stock Barite	
Permit				N/A			Each Mud System	
Requirement				Report			Each Mud System	
DRILL FLUIDS CHEMICAL INVENTORY	Sample						# Days	
Well No.	Measurement			N/A			Each	
	Permit			Report			# Days	
	Requirement			N/A			Each	
No. DAYS DISCHARGE FOR EACH DRILLING FLUID	Sample						Report	
	Measurement			No Discharge			N/A	
	Permit			No Discharge			N/A	
	Requirement			No Discharge			TELEPHONE	DATE
PROHIBITED DISCHARGE								
1. Oil-based Fluids								
2. Diesel Oil								
3. Non-aqueous based drilling fluids or cuttings								
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED BASED ON MY HONOR OF THE PERSON OR PERSONS WHO GATHER THE SYSTEM OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION. THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS. SEE 18 U.S.C. § 1510 AND 33 U.S.C. § 1319 (PENALTIES UNDER THESE STATUTES MAY INCLUDE FINES UP TO \$10,000 AND OR MAXIMUM IMPRISONMENT OF BETWEEN 2 MONTHS AND 5 YEARS).							
TYPED OR PRINTED	 David Rose Manager, Environmental, Health and Safety							
COMMENT AND EXPLANATION OF ANY VIOLATION (Reference all attachments here.)	N/A: No discharge of drilling fluids							
	Signature of PRINCIPAL EXECUTIVE OFFICER, or AUTHORIZED AGENT							
	(805) 934-8220 07 22 2014 MONTH/DAY/YEAR Area Number							

EPA Form 3320-1 (Rev.9-88) Previous editions may be used.

N/A: No discharge of drilling fluids

(Replaces EPS Form T-40 which may not be used.)

File: DMR001.XLS

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Freeport-McMoRan Oil & Gas LLC
201 S. Broadway
Orcutt, Ca 93455

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

CAG2B0000
PERMIT NO.

002
DISCHARGE NO.

PLATFORM HARVEST (DCS P-0315)
LOCATION: 34°28'06"N, 120°40'51"W

MONITORING PERIOD		
YR	MO	DAY
From: 14	04	01

To: 14 06 30

Approved Form
OMB No. 2000-0015

PRODUCED WATER (002)
(commingled with WTCF)

NOTE: Read instructions before completing this form

PARAMETER	Quantity or Loading						Quality or Concentration	NO. EX.	Frequency Analysis	Sample Type
	Average	Maximum	Units	Minimum	Average	Maximum				
PRODUCED WATER	Sample Measurement	32,302	Monthly Average bbl/Day					0	1/day	Estimate
Flow Rate	Permit Requirement									
April	Sample Measurement	34,459	Monthly Average bbl/Day					0	1/day	Estimate
May	Permit Requirement							0	1/day	Estimate
June	Sample Measurement	32,926	Monthly Average bbl/Day					0	1/day	Estimate
QUARTERLY AVERAGE Volume	Permit Requirement							1/day	Estimate	
April - June	Sample Measurement	33,229	Quarterly Average bbl/Day					0	1/quarter	Estimate
								1/quarter	Estimate	
ANNUAL CUMULATIVE Volume¹	Sample Measurement	3,561,616	Barrels/Year					0	1/quarter	Estimate
03/01/2014 - 02/28/2015	Permit Requirement	32,850,000						1/quarter	Estimate	
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER							TELEPHONE	DATE		
David Rose Manager, Environmental, Health and Safety							(805) 934-8220	07 22 2014		
COMMENT AND EXPLANATION OF ANY VIOLATION (Reference all attachments here.)							Signature of PRINCIPAL EXECUTIVE OFFICER or AUTHORIZED AGENT	Area Code	Number	MONTH/DAY/YEAR

¹ Annual cumulative volume limit is applied to the cumulative volumes for the periods of March 1, 2014 through February 28, 2015.

EPA Form 3320-1 (Rev.9-88) Previous editions may be used.

(Replaces EPS Form T-40 which may not be used.)

File: DMR002.xls

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Freeport-McMoRan Oil & Gas LLC
201 S. Broadway
Orcutt, Ca 93455

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Approved Form
OMB No. 2000-0015

CAG280000	002
PERMIT NO.	DISCHARGE NO.

PLATFORM HARVEST (OCS P-0315)
LOCATION: 34°28'06"N, 120°40'51"W

MONITORING PERIOD					
YR	MO	DAY	YR	MO	DAY
From: 14 04 01				To: 14 06 30	

PRODUCED WATER (002)
(commingled with WTCF)

PARAMETER		Quantity or Loading			Quality or Concentration			NO. EX.	Frequency Analysis	Sample Type	
		Average	Maximum	Units	Minimum	Average	Maximum				Units
PRODUCED WATER Oil & Grease	Sample Measurement				11.8	22.0					
	Permit Requirement				29.0	42.0	mgl/L	0	1/week	Grab/Grab/Composite	
April	Sample Measurement				18.3	24.0					
	Permit Requirement				29.0	42.0	mgl/L	0	1/week	Composite	
May	Sample Measurement				8.0	11.0					
	Permit Requirement				29.0	42.0	mgl/L	0	1/week	Grab/Grab/Composite	
June											
NOTE: Read instructions before completing this form.											
I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNATED TO ASSURE THAT QUALIFIED PERSONNEL INDEPEN-DENTLY GATHER AND EVALUATE THE INFORMATION SUBMITTED BASED ON MY INQUIRY OR THE PERSONS WHO MANAGE THE SYSTEM. OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION. THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SEVERE PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWINGLY VIOLATING SEE 18 U.S.C. § 101 AND 33 U.S.C. 1319. PENALTIES UNDER THESE STATUTES MAY INCLUDE FINES UP TO \$100,000 OR MAXIMUM IMPRISONMENT OF BETWEEN 6 MONTHS AND 3 YEARS.											
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER								TELEPHONE	DATE		
David Rose Manager, Environmental, Health and Safety								(805) 934-8220	07	22	2014
Signature of PRINCIPAL EXECUTIVE OFFICER or AUTHORIZED AGENT											
COMMENT AND EXPLANATION OF ANY VIOLATION (Reference all attachments here.)											

DISCHARGE MONITORING REPORT (DMR)

DISCHARGE NO.	002
WIT NO.	33280000

CAG280000	PERMIT NO.
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PLATFORM HARVEST (OCS P-0315)
LOCATION: 34°28'06"N, 120°40'51"W

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PARAMETER		Quantity or Loading				Quality or Concentration			NO. EX.	Frequency Analysis	Sample Type
		Average	Maximum	Units	Minimum	Monthly Average	Daily Maximum	Units			
PRODUCED WATER CONSTITUENTS-MONTHLY											
April BENZENE	Sample Measurement Permit Requirement				0.00121	0.00121	mg/L	0	1 / month	Grab	
May BENZENE	Sample Measurement Permit Requirement				0.0059	0.002200	mg/L	0	1 / month	Grab	
June BENZENE	Sample Measurement Permit Requirement				0.00179	0.00179	mg/L	0	1 / month	Grab	
April UNDISSOCIATED SULFIDE	Sample Measurement Permit Requirement				0.0059	0.002200	mg/L	0	1 / month	Grab	
May UNDISSOCIATED SULFIDE	Sample Measurement Permit Requirement				0.00245	0.00245	mg/L	0	1 / month	Grab	
June UNDISSOCIATED SULFIDE	Sample Measurement Permit Requirement				0.00399	0.00579	mg/L	0	1 / month	Grab	
PRODUCED WATER CONSTITUENTS-QUARTERLY											
3-SPECIES TOXICITY	Sample Measurement Permit Requirement				0.00130	0.00130	mg/L	0	1 / month	Grab	
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	Pass / Fail				0.00399	0.00579	mg/L	0	1 / month	Grab	
David Rose Manager, Environmental, Health and Safety	P A S S						TELEPHONE	0	1 / quarter	Composite	
							DATE				
Signature of PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	<i>David Rose</i>			(805) 934-8220	07	22	2014				
MONTH/DAY/YEAR											
TYPED OR PRINTED											

COMMENT AND EXPLANATION OF ANY VIOLATION (Reference all attachments here.)

Results are post-dilution, and the limits are listed in the new permit effective March 1, 2014, Appendix B.

$NOD(B)$: below MDL. The maximum value of the analytical result is $NOD(Q)$: equal to or above the MDL, but less than the ML or PQL.

operator's MDI (below) datastream

NODI(B): below MDL. The maximum value of the analytical result is NODI(Q): equal to or above the MDL, but less than the ML or PQL.

laboratory's MDL (below detection level).

operator's MDI (below detection level)

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Freeport-McMoRan Oil & Gas LLC
201 S. Broadway
Orcutt, Ca 93455

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

CAG280000
PERMIT NO.

002
DISCHARGE NO.

PLATFORM HARVEST IOCS P-0315 |
LOCATION: 34°28'06"N, 120°40'51"W

MONITORING PERIOD			
YR	MO	DAY	DAY
From: 14	04	01	To: 14 06 30

Approved Form
OMB No. 2000-0015

PRODUCED WATER (002)
Quarterly
(commingled with WTCF)

NOTE: Read instructions before completing this form.

PARAMETER	Quantity or Loading				Frequency	NO. EX.	Frequency	Sample Type
	Average	Maximum	Units	Minimum	Monthly Average	Daily Maximum	Units	
PRODUCED WATER CONSTITUENTS-ANNUAL₁								
BENZO(B)FLUORANTHENE	Sample Measurement				NODI(B)	NODI(B)	mg/L	0 1 / year
	Permit Requirement				N / A	N / A		Grab
BENZO(K)FLUORANTHENE	Sample Measurement				NODI(B)	NODI(B)	mg/L	0 1 / year
	Permit Requirement				N / A	N / A		Grab
BENZO(A)PYRENE	Sample Measurement				NODI(B)	NODI(B)	mg/L	0 1 / year
	Permit Requirement				N / A	N / A		Grab
BENZO(A)ANTHRACENE	Sample Measurement				NODI(B)	NODI(B)	mg/L	0 1 / year
	Permit Requirement				N / A	N / A		Grab
CHRYSENE	Sample Measurement				NODI(B)	NODI(B)	mg/L	0 1 / year
	Permit Requirement				N / A	N / A		Grab
DIBENZO(A,H)ANTHRACENE	Sample Measurement				NODI(B)	NODI(B)	mg/L	0 1 / year
	Permit Requirement				N / A	N / A		Grab
COPPER	Sample Measurement				0.00200	0.00200	mg/L	0 1 / year
	Permit Requirement				N / A	N / A		Grab
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER								
(CERTIFY UNDER PENALTY OF PERjury THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED, BASED ON MY KNOWLEDGE OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM ON THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION. THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS SEE 18 U.S.C. § 1011 AND 35 U.S.C. § 311. [FINALITIES UNDER THESE STATUTES MAY INCLUDE FEES UP TO \$10,000 AND OR JUDICIAL APPROPRIATION OF BETWEEN 6 MONTHS AND 5 YEARS])								
TYPED OR PRINTED								
COMMENT AND EXPLANATION OF ANY VIOLATION (Reference all attachments here.)								
1 Results are post-dilution.								
N/A: There are no limits in the new Permit effective March 1, 2014, Appendix B. NODI(B): below MDL. The maximum value of the analytical result is less than the laboratory's MDL (below detection level).								
NODI(Q): equal to or above the MDL, but less than the ML or PQL. (Refer to Attachment 6 for MDLs and PQLs.)								
EPA Form 3520-1 (Rev.9-88) Previous editions may be used.								
[Signature] David Rose Manager, Environmental, Health and Safety								
(805) 934-8220 07 22 2014								
Signature of PRINCIPAL EXECUTIVE AREA OFFICER or AUTHORIZED AGENT								
Number								
MONTH/DAY/YEAR								

N / A: There are no limits in the new Permit effective March 1, 2014, Appendix B.
NODI(B): below MDL. The maximum value of the analytical result is less than the laboratory's MDL (below detection level).
NODI(Q): equal to or above the MDL, but less than the ML or PQL. (Refer to Attachment 6 for MDLs and PQLs.)
[Replaces EPS Form T-40 which may not be used.]

File:DMR002.xls

Freeport-McMoRan Oil & Gas LLC
201 S. Broadway
Orcutt, Ca 93455

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

CAG280000	003
PERMIT NO.	DISCHARGE NO.

PLATFORM HARVEST [DCS P-0315]
LOCATION: 34°28'06"N, 120°40'51"W

MONITORING PERIOD			
YR	MO	DAY	MO DAY
From: 14	04	01	To: 14 06 30

Approved Form
OMB No. 2000-0015

WELL TREATMENT, COMPLETION AND WORKOVER FLUIDS (003) (Commingle with produced water)			
--	--	--	--

NOTE: Read instructions before completing this form

PARAMETER		Quantity or Loading			Quality or Concentration			NO. EX.	Frequency Analysis	Sample Type
		Average	Maximum	Units	Minimum	Average	Maximum			
WELL TREATMENT, COMPLETION AND WORKOVER FLUIDS Flow 1	April	Sample Measurement Permit Requirement	No Discharge	Barrels / Job Report						
	May	Sample Measurement Permit Requirement	No Discharge	Barrels / Job Report						
	June	Sample Measurement Permit Requirement	No Discharge	Barrels / Job Report						
WELL TREATMENT, COMPLETION AND WORKOVER FLUIDS Oil and Grease 1	April	Sample Measurement Permit Requirement	No Discharge							
	May	Sample Measurement Permit Requirement	No Discharge							
	June	Sample Measurement Permit Requirement	No Discharge							
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER										
David Rose Manager, Environmental Health and Safety										
TYPED OR PRINTED										
COMMENT AND EXPLANATION OF ANY VIOLATION (Reference all attachments here.)										
<p>I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ENSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED, BASED ON MY KNOWLEDGE OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT. FOR KNOWING VIOLATIONS SEE 18 U.S.C. § 1001 AND 33 U.S.C. § 1318. PENALTIES UNDER THESE STATUTES MAY INCLUDE FINES UP TO \$10,000 AND OR MAXIMUM IMPRISONMENT OF BETWEEN 6 MONTHS AND 5 YEARS.</p>										
<p><i>David Rose</i> (805) 934-8220 07 22 2014</p>										
<p>Signature of PRINCIPAL EXECUTIVE OFFICER or AUTHORIZED AGENT Area Code Number</p>										
<p>MONTH/DAY/YEAR</p>										

¹When present, most of the WTCF are injected. If a small amount is commingled with produced water, effluent limitations and monitoring requirements are included with produced water monitoring (see 002), and thus reported as N / A.

Freeport-McMoRan Oil & Gas LLC
201 S. Broadway
Orcutt, Ca 93455

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

CAG280000	003
PERMIT NO.	DISCHARGE NO.

PLATFORM HARVEST (DCS P-0315)
LOCATION: 34°28'06"N, 120°40'51"W

MONITORING PERIOD			
YR	MO	DAY	YR
	From: 14 04 01	To: 14 06 30	

PARAMETER	Quantity or Loading			Quality or Concentration			NO. EX.	Frequency Analysis	Sample Type
	Average	Maximum	Units	Minimum	Average	Maximum			
WELL TREATMENT, COMPLETION AND WORKOVER FLUIDS, Type and Total Number of Jobs	Sample Measurement	0	Barrels / Job						
Requirement	Permit Requirement								
WELL TREATMENT, COMPLETION AND WORKOVER FLUIDS, Static Sheen	Sample Measurement			No Discharge			# Times Observed		
April	Permit Requirement			Negative Static Sheen Test - # Times observed:None					
May	Sample Measurement				No Discharge		# Times Observed		
	Permit Requirement			Negative Static Sheen Test - # Times observed:None					
June	Sample Measurement				No Discharge		# Times Observed		
	Permit Requirement			Negative Static Sheen Test - # Times observed:None					
WELL TREATMENT, COMPLETION AND WORKOVER FLUIDS Chemical Inventory	Sample Measurement			N / A			0	1/month	List
April - June	Permit Requirement				Report			1/month	List
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	<i>(Certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted, based on my inquiry of the person or persons who manage this system, on those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. See 16 U.S.C. § 101 and 33 U.C. § 1319. PENALTIES UNDER THESE STATUTES MAY INCLUDE FINES UP TO \$10,000 AND OR MAXIMUM IMPRISONMENT OF BETWEEN 5 MONTHS AND 5 YEARS.)</i>								TELEPHONE DATE
David Rose Manager, Environmental, Health and Safety Freeport-McMoRan Oil & Gas LLC	<i>[Signature]</i> (805) 934-8220 07 22 2014								
COMMENT AND EXPLANATION OF ANY VIOLATION (Reference all attachments here.)	N / A: There were no jobs related to WTCF. When present, most of the WTCF are injected. If a small amount is commingled with produced water, effluent limitations and monitoring requirements are included with produced water monitoring (see 002), and thus reported as N / A.								
TYPED OR PRINTED									
SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	Signature of PRINCIPAL EXECUTIVE OFFICER or AUTHORIZED AGENT Area Number MONTH/DAY/YEAR								

Approved Form
OMB No. 2000-0015

**WELL TREATMENT, COMPLETION
AND WORKOVER FLUIDS (003)**
(Commingled with produced water)

NOTE: Read instructions before completing this form.

EPA Form 3320-1 (Rev.9-88) Previous editions may be used.
(Replaces EPS Form T-40 which may not be used.)

File:DMR003.xls Pg 10 of 21

Freeport-McMoRan Oil & Gas LLC
201 S. Broadway
Orcutt, Ca 93455

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

CAG280000
PERMIT NO.

004
DISCHARGE NO.

PLATFORM HARVEST (OCS P-0315)
LOCATION: 34°28'06"N, 120°40'51"W

MONITORING PERIOD				
YR	MO	DAY	YR	MO
From: 14	04	01	To: 14	06

Approved Form
OMB No. 2000-0015

DECK DRAINAGE (004)

PARAMETER	Quantity or Loading				Quality or Concentration			NO. EX.	Frequency	Sample Analysis	Sample Type		
	Average	Units	Minimum	Average	Maximum	Units							
DECK DRAINAGE	Sample	Mo. Avg.											
Volume -Flow Rate	Measurement	0.6	bbl/day					0	1/month		Estimate		
April	Permit Requirement	Report											
	Sample	Mo. Avg.	bbl/day					0	1/month		Estimate		
May	Measurement	0.6	bbl/day					0	1/month		Estimate		
	Permit Requirement	Report											
June	Measurement	0.6	bbl/day					0	1/month		Estimate		
	Permit Requirement	Report											
DECK DRAINAGE	Sample	# Days											
Free Oil	Measurement	0	Sheen Observed	No free oil/visual sheen on the receiving water.				0	1/day	Visual - Daylight			
April	Permit Requirement	0	Sheen Observed	No free oil/visual sheen on the receiving water.				0	1/day	Visual - Daylight			
	Sample	# Days											
May	Measurement	0	Sheen Observed	No free oil/visual sheen on the receiving water.				0	1/day	Visual - Daylight			
	Permit Requirement	0	Sheen Observed	No free oil/visual sheen on the receiving water.									
June	Measurement	0	Sheen Observed	No free oil/visual sheen on the receiving water.				0	1/day	Visual - Daylight			
	Permit Requirement	0	Sheen Observed	No free oil/visual sheen on the receiving water.									
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	CERTIFY UNDER PENALTY OF PERJURY THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED. BASED ONLY IN MY OWN PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THESE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS. SEE 18 U.S.C. § 101 AND 33 U.S.C. § 1316. (PENALTIES UNDER THESE STATUTES MAY INCLUDE FINES UP TO \$10,000 AND OR MAXIMUM IMPRISONMENT OF BETWEEN 4 MONTHS AND 5 YEARS.)										TELEPHONE	DATE	
David Rose Manager, Environmental, Health and Safety	<i>David Rose</i>										(805) 934-8220	07 22 2014	
TYPED OR PRINTED											Signature of PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT	Area Code Number	MONTH/DAY/YEAR
COMMENT AND EXPLANATION OF ANY VIOLATION [Reference all attachments here.]													

Freeport-McMoRan Oil & Gas LLC
201 S. Broadway
Orcutt, Ca 93455

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

CAG280000
PERMIT NO.

005
DISCHARGE NO.

PLATFORM HARVEST I(DCS P-0315)
LOCATION: 34°28'06"N, 120°40'51"W

MONITORING PERIOD

YR	MO	DAY	YR	MO	DAY
From: 14 04 01			To: 14 06 30		

SANITARY & DOMESTIC WASTES (005)

PARAMETER		Quantity or Loading			Quality or Concentration			NO. EX.	Frequency Analysis	Sample Type
		Average	Maximum	Units	Minimum	Average	Maximum			
SANITARY WASTES										
Flow Rate	Sample Measurement	20.9	Monthly Average	bbl/day					0	1/day
	Permit Requirement	Report								1/month
April	Sample Measurement	22.4	Monthly Average	bbl/day					0	1/day
	Permit Requirement	Report								1/month
May	Sample Measurement	26.1	Monthly Average	bbl/day					0	1/day
	Permit Requirement	Report								1/month
June	Sample Measurement	0	# days observed	No foam or floating solids in the receiving waters.					0	1/day
	Permit Requirement	Report		No foam or floating solids in the receiving waters.						Visual - Daylight
April	Sample Measurement	0	# days observed	No foam or floating solids in the receiving waters.					0	1/day
	Permit Requirement	Report		No foam or floating solids in the receiving waters.						Visual - Daylight
May	Sample Measurement	0	# days observed	No foam or floating solids in the receiving waters.					0	1/day
	Permit Requirement	Report		No foam or floating solids in the receiving waters.						Visual - Daylight
June	Sample Measurement	0	# days observed	No foam or floating solids in the receiving waters.					0	1/day
	Permit Requirement	Report		No foam or floating solids in the receiving waters.						Visual - Daylight
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER										
I(AM)P(Y) UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNATED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED, BASED ON THE HONOR OF THE PERSON OR PERSONS WHO DRAFTED THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION. THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS. SEE 46 U.S.C. § 14101 AND 33 U.S.C. § 1311 (PENALTIES UNDER THESE STATUTES MAY INCLUDE FINES UP TO \$10,000 AND OR MAXIMUM IMPRISONMENT OF BETWEEN 6 MONTHS AND 5 YEARS)										
TYPED OR PRINTED										
COMMENT AND EXPLANATION OF ANY VIOLATION (Reference all attachments here.)										
Signature of PRINCIPAL EXECUTIVE OFFICER or AUTHORIZED AGENT										
Area Code Number Month/Day/Year										

EPA Form 3320-1 (Rev. 9-88) Previous editions may be used.

(Replaces EPS Form T-40 which may not be used.)

File: DMR005.xls

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Approved Form
OMB No. 2000-0015

Freport-McMoran Oil & Gas LLC
201 S. Broadway
Orcutt, Ca 93455

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)
(2-16)

CAG280000
PERMIT NO.

005
DISCHARGE NO.

PLATFORM HARVEST [DCS P-0315]
LOCATION: 34°28'06"N, 120°40'51"W

Approved Form
OMB No. 2000-0015

SANITARY & DOMESTIC WASTES (005)

MONITORING PERIOD					
YR	MO	DAY	YR	MO	DAY
From:	14	04	To:	14	06

PARAMETER	Quantity or Loading				Quality or Concentration	NO. EX.	Frequency Analysis	Sample Type
	Average	Maximum	Units	Minimum				
SANITARY WASTE RESIDUAL Chlorine _{1,2}	Sample Measurement	N/A	N/A	N/A	Maximum	Units		
	Permit Requirement	1 mg/l	N/A	10 mg/l	mg/l	0		Monthly
	Sample Measurement	2.18	N/A	2.18	mg/l	0		Grab
	Permit Requirement	1 mg/l	N/A	10 mg/l	mg/l	0		Monthly
	Sample Measurement	N/A	N/A	N/A	mg/l	0		Grab
	Permit Requirement	1 mg/l	N/A	10 mg/l	mg/l	0		Monthly
JUNE DOMESTIC WASTES Flow Rate	Sample Measurement	13.9	Monthly Average bbl/day	N/A	10 mg/l	mg/l		Grab
	Permit Requirement	Report			0	1/day		Estimate
	Sample Measurement	14.9	Monthly Average bbl/day			0	1/month	
	Permit Requirement	Report				0	1/day	Estimate
	Sample Measurement	17.4	Monthly Average bbl/day			0	1/month	Estimate
	Permit Requirement	Report				0	1/day	Estimate
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER						TELEPHONE	DATE	
David Rose Manager, Environmental, Health and Safety						(805) 934-8220	07 22 2014	
TYPED OR PRINTED								
COMMENT AND EXPLANATION OF ANY VIOLATION [Reference all attachments here.]						Signature of PRINCIPAL EXECUTIVE OFFICER or AUTHORIZED AGENT	Area Code Number	MONTH/DAY/YEAR
1 The sewage treatment unit is a marine sanitation device that complies with pollution control standards and regulations under Section 312 of the Clean Water Act. Thus, it is deemed to be in compliance with permit limitations for sanitary waste discharges (as per Condition II.E.1 Footnote 2 of CAG280000)								
2 The chlorine residual result reported in May was taken as part of the annual Marine Sanitation Device (MSD) inspection. Thus, it is deemed to be used.								

^{1,2} EPA Form 3320-1 (Rev.9-88). Previous editions may be used.

¹ Replaces EFS Form T-40 which may not be used.

² File: DMR005.xls

Freeport-McMoRan Oil & Gas LLC
201 S. Broadway
Orcutt, Ca 93455

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

CAG280000	DISCHARGE NO.
008	

Approved Form
OMB No. 2000-0015

PLATFORM HARVEST (OCS P-0315)
LOCATION: 34°28'06"N, 120°40'51"W

MONITORING PERIOD			
YR	MO	DAY	YR
From: 14	04	To: 14	06
			30

PARAMETER	Quantity or Loading			Quality or Concentration			NO. EX.	Frequency	Sample Type
	Average	Units	Minimum	Average	Maximum	Units			
FIRE CONTROL SYSTEM TEST WATER (008) -Foam, Floating Solids April	Sample Measurement	0	# Days Observed	No floating solids in the receiving water. No foam in the receiving water.			0	1/day	Visual - Daylight
	Permit Requirement	0		No floating solids in the receiving water. No foam in the receiving water.				1/day	Visual - Daylight
	Sample Measurement	0	# Days Observed	No floating solids in the receiving water. No foam in the receiving water.			0	1/day	Visual - Daylight
	Permit Requirement	0		No floating solids in the receiving water. No foam in the receiving water.				1/day	Visual - Daylight
	Sample Measurement	0	# Days Observed	No floating solids in the receiving water. No foam in the receiving water.			0	1/day	Visual - Daylight
	Permit Requirement	0		No floating solids in the receiving water. No foam in the receiving water.				1/day	Visual - Daylight
FIRE CONTROL SYSTEM TEST WATER (008) Chlorine 1 April - June	Sample Measurement				Daily Average	Maximum			
	Permit Requirement				0.0008	0.0008	mg/l	0	2/quarter Grab
					0.0056	0.0123		1/quarter	Grab
FIRE CONTROL SYSTEM TEST WATER (008) Chemical Inventory April - June	Sample Measurement			See Attachment #2 Chemical Inventory			0	1/month	List
	Permit Requirement							1/month	List
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER				TELEPHONE	DATE				
David Rose Manager, Environmental, Health and Safety				(805) 934-8220	07 22 2014				
COMMENT AND EXPLANATION OF ANY VIOLATION (Reference all attachments here.)				Signature of PRINCIPAL EXECUTIVE OFFICER or AUTHORIZED AGENT	Area Code	Number	MONTH/DAY/YEAR		

¹ Chlorine values reported above are post-dilution per EPA Plumes U. Chlorine limits are post-dilution as listed in the new permit effective March 1, 2014, Appendix C.

EPA Form 3320-1 (Rev. 9-86) Previous editions may be used.

(Replaces EPS Form T-40 which may not be used.)

File:DMR006.XLS Pg 15 of 21

Freeport-McMoRan Oil & Gas LLC
201 S. Broadway
Orcutt, Ca 93455

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

CAG280000
PERMIT NO.

009
DISCHARGE NO.

PLATFORM HARVEST (OCS P-0315)
LOCATION: 34°28'06"N, 120°40'51"W

MONITORING PERIOD			
YR	MO	DAY	YR
	From: 14 04 01	To: 14 06 30	

Approved Form
OMB No. 2000-0015

NON-CONTACT COOLING WATER (009)

PARAMETER	Quantity or Loading				Quality or Concentration			NO. EX.	Frequency Analysis	Sample Type										
	Average	Units	Minimum	Average	Maximum	Units														
NON-CONTACT COOLING WATER (009) - Flow Volume																				
April	190,000	Barrels/ Day						0	1/month	Estimate										
Requirement	Report																			
May	190,000	Barrels/ Day						0	1/month	Estimate										
Requirement	Report																			
June	190,000	Barrels/ Day						0	1/month	Estimate										
Requirement	Report																			
NON-CONTACT COOLING WATER (009) - Foam & Floating Solids																				
April	0	# Days Observed	No floating solids in the receiving water. No foam in the receiving water.					0	1/day	Visual - Daylight										
Requirement	0		No floating solids in the receiving water. No foam in the receiving water.																	
May	0	# Days Observed	No floating solids in the receiving water. No foam in the receiving water.					0	1/day	Visual - Daylight										
Requirement	0		No floating solids in the receiving water. No foam in the receiving water.																	
June	0	# Days Observed	No floating solids in the receiving water. No foam in the receiving water.					0	1/day	Visual - Daylight										
Requirement	0		No floating solids in the receiving water. No foam in the receiving water.																	
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER																				
David Rose Manager, Environmental, Health and Safety	<i>David Rose</i>				TELEPHONE DATE															
	(805) 934-8220				07 22 2014															
COMMENT AND EXPLANATION OF ANY VIOLATION (Reference all attachments here.)																				
TYPED OR PRINTED																				
Signature of PRINCIPAL EXECUTIVE OFFICER or AUTHORIZED AGENT																				
Area Code Number																				
MONTH/DAY/YEAR																				

IDENTITY UNDER PENALTY OF PERJURY: I CERTIFY THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED, BASED ON MY KNOWLEDGE OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM. OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KIDNAPING VICTIMS. SEE 18 U.S.C. § 1071 AND 33 U.S.C. § 1318. (PENALTIES UNDER THESE STATUTES MAY INCLUDE FINES UP TO \$10,000 AND OR MAXIMUM IMPRISONMENT OF BETWEEN 4 MONTHS AND 5 YEARS)

Freeport-McMoRan Oil & Gas LLC
201 S. Broadway
Orcutt, Ca 93455

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

CAG280000
PERMIT NO.
009
DISCHARGE NO.

DISCHARGE NO.
009

PLATFORM HARVEST (OCS P-0315)
LOCATION: 34°28'06"N, 120°40'51"W

MONITORING PERIOD			
YR	MO	DAY	YR
From: 14 04 01 To: 14 06 30			

NON-CONTACT COOLING WATER (009)

PARAMETER	Quantity or Loading				Quality or Concentration	NO. EX.	Frequency Analysis	Sample Type
	Average	Units	Minimum	Monthly Average				
NON-CONTACT COOLING WATER (009) - Chlorine₁	Sample Measurement			0.0027	Daily Maximum	0	1/quarter	Grab
April - June	Permit Requirement			0.00583	0.0104		1/quarter	Grab
NON-CONTACT COOLING WATER (009) Chemical Inventory	Sample Measurement			See Attachment #2 Chemical Inventory		0	1/month	List
April - June	Permit Requirement			Report		1/month	List	
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	CERTIFY UNDER PENALTY OF PERjury THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM. ON THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS SEE 36 U.S.C. § 1001 AND 36 U.S.C. § 310 (PENALTIES UNDER THESE STATUTES MAY INCLUDE FINES UP TO \$10,000 AND OR MAXIMUM IMPRISONMENT OF BETWEEN 6 MONTHS AND 5 YEARS)						TELEPHONE	DATE
David Rose Manager, Environmental, Health and Safety							(805) 934-8220	07 22 2014
TYPED OR PRINTED COMMENT AND EXPLANATION OF ANY VIOLATION (Reference all attachments here.)	Signature of PRINCIPAL EXECUTIVE OFFICER or AUTHORIZED AGENT Area Code Number MONTH/DAY/YEAR							

¹ Chlorine values reported above are post-dilution per EPA Plumes UM. Chlorine limits are post-dilution as listed in the new permit, effective March 1, 2014, Appendix C.

EPA Form 3320-1 (Rev 9-88) Previous editions may be used.

(Replaces EPS Form T-40 which may not be used.)

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Freeport-McMoRan Oil & Gas LLC
201 S. Broadway
Orcutt, Ca 93455

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

CAG280000
PERMIT NO.

019
DISCHARGE NO.

PLATFORM HARVEST (DCS P-0315)
LOCATION: 34°28'06"N, 120°40'51"W

EXCESS CEMENT SLURRY (019)

MONITORING PERIOD			
YR	MO	DAY	YR
	From: 14 04 01	To: 14 06 30	

PARAMETER	Quantity or Loading			Quality or Concentration			NOTE: Read instructions before completing this form. NO. EX.	Frequency Analysis	Sample Type
		Average	Units	Minimum	Average	Maximum			
EXCESS CEMENT SLURRY (019)	Sample Measurement	No Discharge	Monthly Average bbl/day						
Flow Volume	Permit Requirement	Report							
April	Sample Measurement	No Discharge	Monthly Average bbl/day					1/month	Estimate
May	Permit Requirement	Report							
June	Sample Measurement	No Discharge	Monthly Average bbl/day					1/month	Estimate
EXCESS CEMENT SLURRY Annual Cumulative Volume ¹	Permit Requirement	Report							
03/01/14 - 02/28/15	Sample Measurement	0	Barrels/ Year				0		
EXCESS CEMENT SLURRY Sheen Test/Free Oil Foam, Floating Solids April	Permit Requirement	2,000		# Days Sheen Observed	No Discharge	No foam or floating solids No Free Oil		1/well 1/day	Visual Rec. Water
May	Sample Measurement	No Discharge	# Days Sheen Observed	No foam or floating solids No Free Oil	No Discharge	No foam or floating solids No Free Oil		1/well 1/day	Visual Rec. Water
June	Permit Requirement	None							
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	<i>David Rose</i> David Rose Manager, Environmental, Health and Safety								
COMMENT AND EXPLANATION OF ANY VIOLATION (Reference all attachments here.)	1 Annual cumulative volume limit is applied to the cumulative volumes for the periods of March 1, 2014 through February 28, 2015.								
	1 CENTRAL PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ENSURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED, BASED ON ANY KNOWLEDGE OF THE PERSONS OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR OBTAINING THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOATIONS SEE 16 U.S.C. § 106 AND 33 U.S.C. § 1316 PENALTIES UNDER THESE STATUTES MAY INCLUDE FINES UP TO \$100,000.00 EACH DAY OF VIOLATION AND A MAXIMUM IMPRISONMENT OF BETWEEN 6 MONTHS AND 5 YEARS.								
TYPED OR PRINTED	Signature of PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT								
	<i>David Rose</i> (805) 934-8220 07 22 2014								
MONTH/DAY/YEAR	Area Code Number								

¹ Annual cumulative volume limit is applied to the cumulative volumes for the periods of March 1, 2014 through February 28, 2015.

Fireport-McMoRan Oil & Gas LLC
201 S. Broadway
Orcutt, Ca 93455

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

Approved Form

OMB No. 2000-0015

Blowout Preventer Fluids
Desalination Unit
Ballast/Storage Displacement
Bilge Water

Boiler Blowdown
Test Fluids
Diatomaceous Earth Filter Media

NOTE: Read instructions before completing this form.

CAG280000
PERMIT NO.
DISCHARGE NO.
006.007.010.011.012.013.014

MONITORING PERIOD			
YR	MO	DAY	YR
From : 14	04	01	To: 14 06 30

PLATFORM HARVEST (DCS P-0315)
LOCATION: 34°28'06"N, 120°40'51"W

PARAMETER		Quantity or Loading			Quality or Concentration			NO. EX.	Frequency Analysis	Sample Type
		Average	Maximum	Units	Minimum	Average	Maximum			
[006] BLOWOUT PREVENTER FLUIDS	Sample									
Free Oil, Foam, Floating Solids	Measurement									
	Permit									
	Requirement									
[007] DESALINATION UNIT	Sample									
Foam, Floating Solids	Measurement									
	Permit									
	Requirement									
[010] BALLAST & STORAGE DISPLACEMENT WATER - Flow Rate	Sample	No								
Free Oil, Foam, Floating Solids	Measurement	Discharge								
	Permit									
	Requirement									
[011] BILGE WATER Flow Rate	Sample	No								
Free Oil, Foam, Floating Solids	Measurement	Discharge								
	Permit									
	Requirement									
[012] BOILER BLOWDOWN	Sample	No								
Foam, Floating Solids	Measurement	Discharge								
	Permit									
	Requirement									
[013] TEST FLUIDS *	Sample	No								
Flow Rate	Measurement	Discharge								
Free Oil, Foam, Floating Solids	Permit									
	Requirement									
[014] DIATOMACEOUS EARTH FILTER MEDIA Free Oil, Foam, Floating Solids	Sample									
Measurement	Permit									
	Requirement									
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER										
David Rose										
Manager, Environmental, Health and Safety										
TYPED OR PRINTED										
COMMENT AND EXPLANATION OF ANY VIOLATION (Reference all attachments here.)										

* See Attachment #2 for Chemical Inventory, if applicable

EPA Form 3320-1 (Rev.9-88) Previous editions may be used.

(Replaces EPS Form T-40 which may not be used.)

File:DMR006.xls Pg 19 of 21

CERTIFY UNDER PENALTY OF PERJURY THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASURE THAT QUALIFIED PERSONNEL PROPERLY GATHER AND EVALUATE THE INFORMATION SUBMITTED BASED ON MY KNOWLEDGE OF THE PERSONS OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION. THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE, AND I BELIEVE, TRUE, ACCURATE, AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS. SEE 33 U.S.C. § 1311 AND 33 U.S.C. § 1311. (PENALTIES UNDER THESE STATUTES MAY INCLUDE FINES UP TO \$100,000 AND MAXIMUM IMPRISONMENT OF BETWEEN 6 MONTHS AND 5 YEARS)


 Signature of PRINCIPAL EXECUTIVE OFFICER or AUTHORIZED AGENT
 Area Code
 Number
 MONTH/DAY/YEAR
 DATE
 (805) 934-8220 07 22 2014

Freeport-McMoRan Oil & Gas LLC
201 S. Broadway
Orcutt, Ca 93455

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)
DISCHARGE MONITORING REPORT (DMR)

Approved Form

OMB No. 2000-0015

CAG280000	PERMIT NO.
015, 016, 017, 018, 020, 021	DISCHARGE NO.

Bulk Water Transfer Overflow
Uncontaminated Water

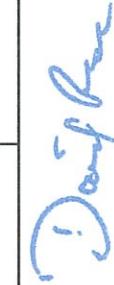
Water Flooding Discharges
Laboratory Wastes
Muds, Cuttings, Cement at Sea
Hydrotest Water

PLATFORM HARVEST (OCS P-0315)
LOCATION: 34°28'06"N, 120°40'51"W

MONITORING PERIOD			
YR	MO	DAY	YR
From: 14	04	01	To: 14 06 30

Quantity or Loading

Quality or Concentration

PARAMETER		Average	Units	Minimum	Average	Maximum	Units	NO. EX.	Frequency	Sample Analysis	Sample Type
[015] BULK TRANSFER WATER OVERFLOW	Sample Measurement										
Foam, Floating Solids	Permit Requirement			No floating solids in the receiving water. No foam, in other than trace amounts, in the receiving water.					1/month	Visual	
April - June	Sample Measurement								1/discharge	Rec. Water	
[016] UNCONTAMINATED WATER Foam, Floating Solids	Permit Requirement			No floating solids in the receiving water. No foam, in other than trace amounts, in the receiving water.					1/month	Visual	
April - June	Sample Measurement								1/discharge	Rec. Water	
[017] WATER FLOODING DISCHARGES Free Oil, Foam, Floating Solids*	Sample Measurement			No free oil or floating solids in the receiving water. No foam, in other than trace amounts, in the receiving water.					1/month	Visual	
April - June	Permit Requirement			No free oil or floating solids in the receiving water. No foam, in other than trace amounts, in the receiving water.					1/discharge	Rec. Water	
[018] LABORATORY WASTES Free Oil, Foam, Floating Solids (commingled with produced water)	Sample Measurement			N/A (refer to produced water requirements)					1/day	Visual	
April - June	Permit Requirement			No free oil or floating solids in the receiving water. No foam, in other than trace amounts, in the receiving water.					1/month	Rec. Water	
[020] MUDS, CUTTINGS, CEMENT AT SEA FLOOR	Sample Measurement			No free oil or floating solids in the receiving water. No foam, in other than trace amounts, in the receiving water.					1/month	Visual	
Free Oil, Foam, Floating Solids	Permit Requirement			No free oil or floating solids in the receiving water. No foam, in other than trace amounts, in the receiving water.					1/discharge	Rec. Water	
April - June	Sample Measurement										
[021] HYDROTEST WATER Flow Rate /Free Oil, Foam Floating Solids	Sample Measurement	No	Discharge	Monthly	Average bbl/day						
April - June	Permit Requirement	Report									
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATE THE INFORMATION SUBMITTED BASED ONLY INQUIRY ON THE PERSONS OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR OBTAINING THE INFORMATION. THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS. SEE 16 U.S.C. § 101 AND 33 U.S.C. § 1311. PENALTIES UNDER THESE STATUTES MAY INCLUDE FINES UP TO \$10,000 AND MAXIMUM IMPRISONMENT OF BETWEEN 6 MONTHS AND 5 YEARS.										
David Rose Manager, Environmental, Health and Safety	 (805) 934-8220 07 22 2014										
TYPED OR PRINTED	Signature of PRINCIPAL EXECUTIVE OFFICER or AUTHORIZED AGENT Area Code Number										
COMMENT AND EXPLANATION OF ANY VIOLATION (Reference all attachments here.)											

* See Attachment #2 for Chemical Inventory, if applicable

EPA Form 3320-1 (Rev.9-88) Previous editions may be used.

(Replaces EPS Form T-40 which may not be used.)

File:DMR006.xls

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Attachment 2

Chemical Inventory

ATTACHMENT 2
PLATFORM HARVEST
MISCELLANEOUS DISCHARGES
CHEMICAL INVENTORY
April 1, 2014 through June 30, 2014

<u>Fluid Type</u>	<u>Volume</u> (Monthly avg bbls per day)	<u>Product Name</u>	<u>Estimated Chemical Quantity</u> (Monthly avg gal per day)	<u>Average End-of-Pipe Concentration</u> (mg/l)
009 Non-contact Cooling Water				
April	190,000	Chlorine	0.80	0.1
May	190,000	Chlorine	1.60	0.2
June	190,000	Chlorine	1.60	0.2
008 Fire Control System Water ¹				
April	78	Chlorine	< 0.0001	< 0.1
May	48	Chlorine	< 0.0001	< 0.1
June	83	Chlorine	< 0.0001	< 0.1
013 Test Fluids	No Discharge	No Discharge	None	None
017 Water Flooding Discharges	No Discharge	No Discharge	None	None
021 Hydrotest Water	No Discharge	No Discharge	None	None

¹ Volumes estimated based on weekly firewater pump tests (refer to cover letter).

² Chemical quantity for non-contact cooling water calculated with Operations daily monitoring results using a non-EPA chlorine test method (Hach DPD Color Wheel).
 Firewater chlorine monitoring is performed on a weekly basis using a non-EPA chlorine test method (Hach DPD Color Wheel).

Attachment 3

Undissociated Sulfide Conversion Calculation Table

DM/R: June 2014
Multiport Outfall Diffuser

Platform Harvest- Percent Undissociated sulfides (H_2S) vs Total Sulfide:

Standard Methods 19th Edition 1995, page 4-129

Enter Temperature as Kelvin where Temp K= Temp C+273.15 (automatic conversion at the bottom of this page if in F).

		Calculation As fresh water		Calculation As ocean water		Calculation as Produced water	
Ocean pH	8.1	A	0.501	A	-0.115	A	-0.138
Produced Water pH	6.9	Permit Historical					
Produced Water Temp.	351.48 K	2014					
Ocean Water Temp	288.15 K	Permit 6-Jun-14	pfm I	0.059 0.02	B /	0.00959 0.80	B 0.7
Dissolved Sulfides (SW 4500-S2 F)	83 mg/l	St	2.5938E-03 mole	S	30	Permit S	27
Dilution (New Multiport Outfall)	3667 *	Historical	pK K'	7.11 1.01E-07	pK' K'	6.77 1.70E-07	Historical 6.66 2.18E-07
Conductivity (produced water)	41200	12-May-14	[H] [H2S]	2.04E-07 1.73E-03	[H] [H2S]	1.04E-08 1.49E-04 mole	[H] [H2S] 1.13E-03
"I" (produced water)	0.7		H2S as S	55.42 mg/L	H2S as S	4.77 mg/L	H2S as S 36.17 mg/L
Conductivity (ocean water)	49700			pfm	0.117	pfm	0.125
"I" (ocean water)	0.80						43.58%
% Undissociated sulfides (H_2S):					5.746%		
Conc. as H_2S (undissociated)					4.770 mg/l		
H_2S Post Dilution (mg/l):					0.001 mg/l		
H_2S Post Dilution (ug/l): (DMR)					1.301 ug/l		

* Dilution calculated from quarterly average flow rate from the previous DMR quarter (per the Permit) and the outfall configuration for this reporting quarter.
 Ocean water pH:8.1, salinity 30 g/kg as listed in the General NPDES permit.

I = 1.6×10^{-5} Conductivity (Stand.Methods 19th Edition, page 2-31).

Ocean water conditions for pH, Temp, Salinity, and conductivity will dominate over those for produced water at the edge of the 100m mixing zone.
 pK' (under ocean water) uses pK (7.11 as freshwater) in the pK' calculation which also includes standard ocean conditions (for pH, Salinity, Temp).

Temperature conversion:	Temp F	Temp C	Temp. K
C = 5/9 (F-32)			
Produced Water: (Annual Cum. Avg.)	173	78.33	351.48
Ocean Water:	59	15.00	288.15 permitted

DMR: May 2014
Multiport Outfall Diffuser

Platform Harvest- Percent Undissociated sulfides (H_2S) vs Total Sulfide:

Standard Methods 19th Edition 1995, page 4-129

Enter Temperature as Kelvin where Temp K= Temp C+273.15 (automatic conversion at the bottom of this page if in F).

		Calculation As fresh water		Calculation As ocean water		Calculation as Produced water	
		A	0.501	A	-0.115	A	-0.138
Ocean pH	8.1	Permit					
Produced Water pH	6.9	Historical					
Produced Water Temp	351.48 k	2014					
Ocean Water Temp	288.15 k	Permit					
Dissolved Sulfides (SM 4500-S2 F)	157 mg/l	7-May-14					
Dilution (New Multiport Outfall)	36667 *	St	0.02	B	0.00959	B	0.00983
Conductivity (produced water)	41200	Historical	4.9063E-03 mole	/	0.82	/	0.7
"T" (produced water)	0.7	pK	7.11	S	30	Permit S	27 Historical
Conductivity (ocean water)	51200	K'	1.01E-07	pK'	6.77	pK	6.66
"T" (ocean water)	0.82	[H]	2.04E-07	K'	1.70E-07	K	2.18E-07
% Undissociated sulfides (H_2S):		[H2S]	3.28E-03 mole	[H]	1.03E-08	[H]	1.68E-07
Conc. as H_2S (undissociated)		H2S as S	104.84 mg/L	[H2S]	2.81E-04 mole	[H2S]	2.14E-03
H_2S Post Dilution (mg/l):				H2S as S	8.99 mg/L	H2S as S	68.43 mg/L
H_2S Post Dilution (ug/l): (DMR)				pfm	0.115	pfm	0.125
% Undissociated sulfides (H_2S):				5.725%		43.58%	
Conc. as H_2S (undissociated)				8.988	mg/l	68.427	mg/l
H_2S Post Dilution (mg/l):				0.002	mg/l	0.019	mg/l
H_2S Post Dilution (ug/l): (DMR)				2.451	ug/l	18.660	ug/l

* Dilution calculated from quarterly average flow rate from the previous DMR quarter (per the Permit) and the outfall configuration for this reporting quarter.
Ocean water pH:8.1, salinity 30 g/kg as listed in the General NPDES permit.

I = 1.6×10^{-5} Conductivity (Stand. Methods 19th Edition, page 2-31).

Ocean water conditions for pH, Temp, Salinity, and conductivity will dominate over those for produced water at the edge of the 100m mixing zone.
pK' (under ocean water) uses pK (7.11 as freshwater) in the PK' calculation which also includes standard ocean conditions (for pH, Salinity, Temp).

Temperature conversion:

C = 5/9 (F-32)	Temp F	Temp C	Temp. K
Produced Water: (Annual Cum. Avg.)	173	78.33	351.48
Ocean Water:	59	15.00	288.15 permitted

DMR: April 2014
Multiport Outfall Diffuser

Platform Harvest- Percent Undissociated sulfides (H_2S) vs Total Sulfide:

Standard Methods 19th Edition 1995, page 4-129

Enter Temperature as Kelvin where Temp K= Temp C+273.15 (automatic conversion at the bottom of this page if in F).

	Ocean pH	Calculation As fresh water		Calculation As ocean water		Calculation as Produced water	
		A	0.501	A	-0.115	A	-0.138
Produced Water pH	8.1	Permit					
Produced Water Temp.	6.9	Historical					
Ocean Water Temp	351.48	K	2014				
Dissolved Sulfides (SM 4500-\$2 F)	288.15	K					
Dilution (New Multiport Outfall)	140	mg/l					
Conductivity (produced water)	3667 *						
"I" (produced water)	41200						
Conductivity (ocean water)	0.7						
"H" (ocean water)	51700						
	0.83						
% Undissociated sulfides (H_2S):							
Conc. as H_2S (undissociated)							
H_2S Post Dilution (mg/l):							
H_2S Post Dilution (ug/l): (DMR)							

* Dilution calculated from quarterly average flow rate from the previous DMR quarter (per the Permit) and the outfall configuration for this reporting quarter.
 Ocean water pH:8.1, salinity 30 g/kg as listed in the General NPDES permit.

I = 1.6×10^{-5} Conductivity (Stand Methods 19th Edition, page 2-31).

Ocean water conditions for pH, Temp, Salinity, and conductivity will dominate over those for produced water at the edge of the 100m mixing zone.
 pK' (under ocean water) uses pK (7.11 as freshwater) in the pK' calculation which also includes standard ocean conditions (for pH, Salinity, Temp).

Temperature conversion:

C = 5/9 (F-32)	Temp F	Temp C	Temp K
Produced Water: (Annual Cum. Avg.)	173	78.33	351.48
Ocean Water:	59	15.00	288.15

C = 5/9 (F-32)	Temp F	Temp C	Temp K
Produced Water: (Annual Cum. Avg.)	173	78.33	351.48
Ocean Water:	59	15.00	288.15

Attachment 4

Non-Contact Cooling Water / Fire Water

Chlorine Residual Results

ATTACHMENT 4
PLATFORM HARVEST
NON-CONTACT / FIRE WATER CHLORINE RESULTS
April 1, 2014 through June 30, 2014

<u>Discharge</u>	<u>Measurement Frequency</u>	Average Post Dilution (mg/l)	Maximum Daily Limit, Post Dilution (mg/l)	Result Post Dilution (mg/l)	End-of-Pipe Concentration (mg/l)	EPA Plumes Dilution
008 Fire Control System Water Sample Date: 04/29/14	Once/Quarter	0.0056	0.0123	0.0008	0.15	EPA Method 330.5
009 Non-contact Cooling Water Sample Date: 04/15/14	Once/Quarter	0.00583	0.0104	0.0027	0.23	180:1
						85:1

¹ Limits are post-dilution as listed in the new permit, Appendix C.

Attachment 5

Miscellaneous NPDES Monitoring

ATTACHMENT 5
PLATFORM HARVEST
MISCELLANEOUS MONITORING
April 1, 2014 through June 30, 2014

<u>Sample Location</u>	<u>Sample Date</u>	<u>Constituents</u>	<u>EPA Method</u>	<u>Lab Value</u>	<u>Units</u>
Ocean Water at Fire Water Pumps	4/9/2014	Specific Conductivity ¹	120.1	51,700	unhos/cm
	5/7/2014	Specific Conductivity ¹	120.1	51,200	unhos/cm
	6/21/2014	Specific Conductivity ¹	120.1	49,700	unhos/cm
Produced Water	4/9/2014	Total Dissolved Sulfide	SM 4500S ² -F	140	mg/L
	5/7/2014	Total Dissolved Sulfide	SM 4500S ² -F	157	mg/L
	6/6/2014	Total Dissolved Sulfide	SM 4500S ² -F	83	mg/L

¹ Specific Conductivity results were used in sulfide conversion calculations.



LTS ENVIRONMENTAL, INC.

Freeport-McMoRan Oil & Gas
201 S. Broadway
Orcutt, Ca 93455

June 30, 2014

Attn: David Rose

As part of the Annual Marine Sanitation Device (MSD) Inspection, and to ensure proper operation of the device, LTS Environmental performed an EPA-approved chlorine residual on the effluent. Results of this test are as follows:

Date/Time	Location	Total Chlorine Residual (EPA Method 330.5)
May 21, 2014 @ 0700 hrs.	Platform Harvest Sewage Effluent Omnipure 12MX	2.18 mg/l
LTS Meter S/N 12040E195572	Method Blank	< 0.05 mg/l (MDL)
LTS Technician: Mike Apple		



S.G. Lawry
Environmental Specialist / LTS

Attachment 6

EPA Letter



Environmental and Analytical Services-Since 1994

California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

Prepared for: Freeport McMoRan O&G
C/O: LTS environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
Attn: Steve Lawry

Report Date: April 16, 2014

Laboratory Number: 140949

Project Name: PF Harvest wk(1) Weekly NPDES

Sampled by: Client

4/4

On April 11, 2014, Capco Analytical Services, Inc. (CAS), received one(1) sample to be analyzed. The sample was identified and assigned the laboratory ID number listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
D.O./NPDES	140949-01

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

A handwritten signature in black ink, appearing to read "Keith C".

Keith Chin-Yuan Chang, Ph.D.
Director - Analytical Operations

cc: PF Harvest @-Orcutt
Ruth Juris @-EDT

If you have any further questions or concerns, please contact me at your convenience.
This report consists of 1 page excluding the cover letter and the Chain of Custody.

This report shall not be reproduced except in full without the written approval of CAS. The test results reported represent only the item being tested and may not represent the entire material from which the sample was taken.



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Freeport McMoRan O&G (PF Harvest)
CAS LAB NO: 140949
Analyst: GM

Date Sampled: 04/04/14
Date Received: 04/11/14
Date Analyzed: 04/14/14
Sample Matrix: Water

OIL & GREASE ANALYSIS
EPA METHOD 1664

CAS LAB #	Sample ID	RESULTS (mg/L)	DF	MDL (mg/L)	PQL (mg/L)
140949-01	D.O/NPDES	19	1	1	5

QUALITY CONTROL DATA

140949-MB	Method Blank	ND	1	1	5
-----------	--------------	----	---	---	---

Chain of Custody

LTS Environmental, Inc. 704 Adirondack Avenue Ventura, CA 93003 805-644-4560		Report to FM O&G c/o Steve Lawry		Bill to:	Accounts Payable 140949
				700 Milam Ste 3100 Houston, TX, 77002	
				Harvest wk(1) Operations Weekly NPDES Normal	
				SUBMITTED TO: REPORT TO: COPIES TO: RESULTS REQUIRED: RESULTS BY: PHONE: FAX:	
				Capco Analytical Services Platform Supervisor 201 S. Broadway, Orcutt, CA 93455	
				PHONE: 644-4560 PHONE: _____	
				ANALYSES REQUESTED (METHOD)	
SAMPLE NO.	SAMPLE ID/LOCATION	GRAB COMP.	VOLUME	DATETIME COLLECTED	Pre-serv
1	D.O./NPDES	grab	1	Date: 4/4/14 Time: 1:40	EPA 1664 IR (4) after (1)
					Sample pulled by Operations @ my direction (LTS: Mike Apple)
Comments: _____					
Relinquished by: <u>DeLoyd D</u> Received by: <u>E.G.</u>		Date: 4/11/14 Time: 1:30		Relinquished by: _____ Date: _____ Received by: _____ Time: _____	
Relinquished by: _____ Received by: _____		Date: _____ Time: _____		Relinquished by: _____ Date: _____ Received by: _____ Time: _____	



Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

Prepared for: Freeport McMoRan O&G
C/O: LTS Environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
Attn: Steve Lawry

Report Date: April 22, 2014

Laboratory Number: 140951

Project Name: PF Harvest, Annual NPDES Produced Water Monitoring

4/18/14

On April 11, 2014, Capco Analytical Services, Inc. (CAS), received five (5) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
NPDES PROD. WATER	140951-01
NPDES PROD. WATER	140951-02
NPDES PROD. WATER	140951-03
NPDES PROD. WATER	140951-04
OCEAN WATER @-FIRE WATER PUMPS	140951-05

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

A handwritten signature in black ink, appearing to read "Keith C".

Keith Chin-Yuan Chang, Ph.D.
Director - Analytical Operations

cc: PF Harvest Supervisor @-Orcutt
Ruth Juris @-EDT

If you have any further questions or concerns, please contact me at your convenience. This report consists of 10 pages excluding the cover letter and the Chain of Custody.

This report shall not be reproduced except in full without the written approval of CAS. The test results reported represent only the item being tested and may not represent the entire material from which the sample was taken.



Environmental and Analytical Services-Since 1994

California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Freeport McMoRan (PF Harvest)
CAS LAB NO: 140951
Analyst: ABE

Date Sampled: 04/08/14
Date Received: 04/11/14
Date Analyzed: 04/14/14
Sample Matrix: Water

TOTAL COPPER
EPA Method 200.7

CAS Lab #	Sample ID	RESULTS (μ g/L)	Dilution Factor	POL (μ g/L)	MDL (μ g/L)
140951-02	NPDES Prod. Water	ND	1	20	4

QUALITY CONTROL SECTION

140951-MB	Method Blank	ND	1	20	4
-----------	--------------	----	---	----	---



Environmental and Analytical Services-Since 1994

California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Freeport McMoRan (PF Harvest) Date Sampled: 04/08/14 & 04/09/14
CAS LAB NO: 140951 Date Received: 04/11/14
Analyst: AN Sample Matrix: Water

WET CHEMISTRY SUMMARY

COMPOUND	RESULTS	UNITS	DF	PQL	MDL	METHOD	ANALYZED

CAS Lab#: 140951-01

Sample ID: NPDES Prod. Water

Ammonia (as N)	140	mg/L	1	0.1	0.02	4500NH ₃ D	04/11/14
----------------	-----	------	---	-----	------	-----------------------	----------

CAS Lab#: 140951-04

Sample ID: NPDES Prod. Water

Dissolved Sulfide	140	mg/L	1	0.2	0.04	4500S ⁻² F	04/14/14
-------------------	-----	------	---	-----	------	-----------------------	----------

CAS Lab#: 140951-05

Sample ID: Ocean Water @-Fire Water Pumps

Spec. Conductivity	51700	umho/cm	1	1	---	120.1	04/11/14
--------------------	-------	---------	---	---	-----	-------	----------



WECK LABORATORIES, INC.

Analytical Laboratory Service - Since 1964

Capco Analytical Services
1536 Eastman Avenue
Ventura CA, 93003

Date Received: 04/15/14 12:00
Date Reported: 04/21/14 14:31

4D15037-01 140951-03
Sampled: 04/08/14 16:30 Sampled By: Client Matrix: Water

Acid and Base/Neutral Extractables by EPA Method 625

Method: EPA 625	Batch: W4D0750	Prepared: 04/15/14 14:05			Analyst: Armando Bielma		
Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Benzo (a) anthracene	ND	0.95	5.0	ug/l	5	04/17/14 22:59	M-05
Benzo (a) pyrene	ND	0.65	5.0	ug/l	5	04/17/14 22:59	M-05
Benzo (b) fluoranthene	ND	0.70	5.0	ug/l	5	04/17/14 22:59	M-05
Benzo (k) fluoranthene	ND	1.1	5.0	ug/l	5	04/17/14 22:59	M-05
Chrysene	ND	0.95	5.0	ug/l	5	04/17/14 22:59	M-05
Dibenzo (a,h) anthracene	ND	0.40	10	ug/l	5	04/17/14 22:59	M-05
Sur: 2,4,6-Tribromophenol	93 %	Conc:103	25-102	%			M-05
Sur: 2-Fluorobiphenyl	85 %	Conc:47.2	22-107	%			M-05
Sur: 2-Fluorophenol	59 %	Conc:65.0	3-74	%			M-05
Sur: Nitrobenzene-d5	63 %	Conc:35.2	27-111	%			M-05
Sur: Phenol-d5	48 %	Conc:53.0	0.1-53	%			M-05
Sur: Terphenyl-d14	97 %	Conc:54.2	28-113	%			M-05



Environmental and Analytical Services-Since 1994

QUALITY CONTROL SECTION



Environmental and Analytical Services-Since 1994

California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

QUALITY CONTROL SECTION

Sample ID: Method Blank
CAS LAB NO: 140951-MB

Analyst: AN

WET CHEMISTRY SUMMARY

CPMPOUND	RESULTS	UNITS	DF	PQL	MDL	METHOD	ANALYZED
Ammonia (as N)	ND	mg/L	1	0.1	0.02	4500NH ₃ D	04/11/14
Dissolved Sulfide	ND	mg/L	1	0.2	0.04	4500S ⁻² F	04/14/14

DF: Dilution Factor

mg/L: Milligrams/Liter (ppm)

ND: Not Detected



WECK LABORATORIES, INC.

Analytical Laboratory Service - Since 1964

Capco Analytical Services
1536 Eastman Avenue
Ventura CA, 93003

Date Received: 04/15/14 12:00
Date Reported: 04/21/14 14:31

Acid and Base/Neutral Extractables by EPA Method 625 - Quality Control

Batch W4D0750 - EPA 625

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
Blank (W4D0750-BLK1)											
						Analyzed: 04/17/14 21:00					
Benzo (a) anthracene	ND	0.19	1.0	ug/l							
Benzo (a) pyrene	ND	0.13	1.0	ug/l							
Benzo (b) fluoranthene	ND	0.14	1.0	ug/l							
Benzo (k) fluoranthene	ND	0.22	1.0	ug/l							
Chrysene	ND	0.19	1.0	ug/l							
Dibenzo (a,h) anthracene	ND	0.080	2.0	ug/l							
<i>Sum: 2,4,6-Tribromophenol</i>	92.9			ug/l	100		93	25-102			
<i>Sum: 2-Fluorobiphenyl</i>	54.3			ug/l	50.0		109	22-107			S-11
<i>Sum: 2-Fluorophenol</i>	47.4			ug/l	100		47	3-74			
<i>Sum: Nitrobenzene-d5</i>	40.1			ug/l	50.0		80	27-111			
<i>Sum: Phenol-d5</i>	29.4			ug/l	100		29	0.1-53			
<i>Sum: Terphenyl-d14</i>	50.2			ug/l	50.0		100	28-113			
LCS (W4D0750-BS1)											
						Analyzed: 04/17/14 21:30					
1,2,4-Trichlorobenzene	39.7	0.55	1.0	ug/l	50.0		79	44-142			
1,2-Dichlorobenzene	37.0	0.57	1.0	ug/l	50.0		74	32-129			
1,3-Dichlorobenzene	34.6	0.53	1.0	ug/l	50.0		69	0.1-172			
1,4-Dichlorobenzene	39.2	0.55	1.0	ug/l	50.0		78	20-124			
2,4,6-Trichlorophenol	47.7	0.22	1.0	ug/l	50.0		95	37-144			
2,4-Dichlorophenol	40.9	0.26	1.0	ug/l	50.0		82	39-135			
2,4-Dimethylphenol	31.0	0.30	1.0	ug/l	50.0		62	32-119			
2,4-Dinitrophenol	49.2	1.6	10	ug/l	50.0		98	0.1-191			
2,4-Dinitrotoluene	42.4	0.18	1.0	ug/l	50.0		85	39-139			
2,6-Dinitrotoluene	45.3	0.27	1.0	ug/l	50.0		91	50-158			
2-Chloronaphthalene	48.2	0.45	1.0	ug/l	50.0		96	60-118			
2-Chlorophenol	32.8	0.28	1.0	ug/l	50.0		66	23-134			
2-Methyl-4,6-dinitrophenol	50.0	1.7	5.0	ug/l	50.0		100	0.1-181			
2-Nitrophenol	38.2	0.26	1.0	ug/l	50.0		76	29-182			
3,3'-Dichlorobenzidine	37.3	1.2	5.0	ug/l	50.0		75	0.1-262			
4,6-Dinitro-2-methylphenol	50.0	1.7	5.0	ug/l	50.0		100	0.1-181			
4-Bromophenyl phenyl ether	38.5	0.36	1.0	ug/l	50.0		77	53-127			
4-Chloro-3-methylphenol	41.4	0.23	1.0	ug/l	50.0		83	22-147			
4-Chlorophenyl phenyl ether	45.5	0.41	1.0	ug/l	50.0		91	25-158			
4-Nitrophenol	21.1	0.45	5.0	ug/l	50.0		42	0.1-132			
Acenaphthene	43.5	0.38	1.0	ug/l	50.0		87	47-145			
Acenaphthylene	52.2	0.40	1.0	ug/l	50.0		104	33-145			
Anthracene	41.3	0.34	1.0	ug/l	50.0		83	27-133			
Benzo (a) anthracene	49.0	0.19	1.0	ug/l	50.0		98	33-143			
Benzo (a) pyrene	44.1	0.13	1.0	ug/l	50.0		88	17-163			
Benzo (b) fluoranthene	45.4	0.14	1.0	ug/l	50.0		91	24-159			
Benzo (g,h,i) perylene	24.8	0.10	2.0	ug/l	50.0		50	0.1-219			

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Analytical Laboratory Service - Since 1964

Capco Analytical Services
 1536 Eastman Avenue
 Ventura CA, 93003

Date Received: 04/15/14 12:00
 Date Reported: 04/21/14 14:31

Acid and Base/Neutral Extractables by EPA Method 625 - Quality Control

Batch W4D0750 - EPA 625

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS (W4D0750-BS1)											
Benzo (k) fluoranthene	41.2	0.22	1.0	ug/l	50.0	82	11-162				
Benzyl butyl phthalate	45.1	0.18	1.0	ug/l	50.0	90	0.1-152				
Bis(2-chloroethoxy)methane	40.0	0.25	1.0	ug/l	50.0	80	33-184				
Bis(2-chloroethyl)ether	32.1	0.27	1.0	ug/l	50.0	64	12-158				
Bis(2-chloroisopropyl)ether	34.0	0.38	1.0	ug/l	50.0	68	36-166				
Bis(2-ethylhexyl)phthalate	41.2	2.3	5.0	ug/l	50.0	82	8-158				
Butyl benzyl phthalate	45.1	0.18	1.0	ug/l	50.0	90	0.1-152				
Chrysene	46.5	0.19	1.0	ug/l	50.0	93	17-168				
Dibenzo (a,h) anthracene	29.7	0.080	2.0	ug/l	50.0	59	0.1-227				
Diethyl phthalate	42.8	0.15	1.0	ug/l	50.0	86	0.1-114				
Dimethyl phthalate	51.3	0.18	1.0	ug/l	50.0	103	0.1-112				
Di-n-butyl phthalate	37.4	0.24	1.0	ug/l	50.0	75	1-118				
Di-n-octyl phthalate	38.1	0.19	1.0	ug/l	50.0	76	4-146				
Fluoranthene	38.1	0.22	1.0	ug/l	50.0	76	26-137				
Fluorene	46.7	0.35	1.0	ug/l	50.0	93	59-121				
Hexachlorobenzene	46.3	0.49	1.0	ug/l	50.0	93	0.1-152				
Hexachlorobutadiene	48.3	0.47	1.0	ug/l	50.0	97	24-116				
Hexachlorocyclopentadiene	27.3	1.5	5.0	ug/l	50.0	55	0.1-81				
Hexachloroethane	39.7	0.52	1.0	ug/l	50.0	79	40-113				
Indeno (1,2,3-cd) pyrene	29.4	0.12	2.0	ug/l	50.0	59	0.1-171				
Isophorone	36.2	0.21	1.0	ug/l	50.0	72	21-196				
Naphthalene	43.8	0.49	1.0	ug/l	50.0	88	21-133				
Nitrobenzene	40.5	0.36	1.0	ug/l	50.0	81	35-180				
N-Nitrosodimethylamine	25.5	0.14	1.0	ug/l	50.0	51	15-59				
N-Nitrosodi-n-propylamine	39.2	0.26	1.0	ug/l	50.0	78	0.1-230				
N-Nitrosodiphenylamine	34.1	0.19	1.0	ug/l	50.0	68	42-90				
Pentachlorophenol	44.7	0.19	1.0	ug/l	50.0	89	14-176				
Phenanthrene	46.8	0.32	1.0	ug/l	50.0	94	54-120				
Phenol	12.9	0.16	1.0	ug/l	50.0	26	5-112				
Pyrene	38.6	0.25	1.0	ug/l	50.0	77	52-115				
Sum: 2,4,6-Tribromophenol	95.4			ug/l	100	95	25-102				
Sum: 2-Fluorobiphenyl	50.6			ug/l	50.0	101	22-107				
Sum: 2-Fluorophenol	38.1			ug/l	100	38	3-74				
Sum: Nitrobenzene-d5	39.3			ug/l	50.0	79	27-111				
Sum: Phenol-d5	28.5			ug/l	100	29	0.1-53				
Sum: Terphenyl-d14	40.3			ug/l	50.0	81	28-113				
LCS Dup (W4D0750-BSD1)											
1,2,4-Trichlorobenzene	35.1	0.55	1.0	ug/l	50.0	70	44-142	12	30		
1,2-Dichlorobenzene	31.1	0.57	1.0	ug/l	50.0	62	32-129	17	30		
1,3-Dichlorobenzene	29.8	0.53	1.0	ug/l	50.0	60	0.1-172	15	30		
Analyzed: 04/17/14 22:00											

Page 6 of 9

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Capco Analytical Services
1536 Eastman Avenue
Ventura CA, 93003

Date Received: 04/15/14 12:00
Date Reported: 04/21/14 14:31

Acid and Base/Neutral Extractables by EPA Method 625 - Quality Control

Batch W4D0750 - EPA 625

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W4D0750-BSD1)										Analyzed: 04/17/14 22:00	
1,4-Dichlorobenzene	33.8	0.55	1.0	ug/l	50.0	68	20-124	15	30		
2,4,6-Trichlorophenol	39.8	0.22	1.0	ug/l	50.0	80	37-144	18	30		
2,4-Dichlorophenol	30.4	0.26	1.0	ug/l	50.0	61	39-135	29	30		
2,4-Dimethylphenol	19.3	0.30	1.0	ug/l	50.0	39	32-119	46	30		Q-12
2,4-Dinitrophenol	48.1	1.6	10	ug/l	50.0	96	0.1-191	2	30		
2,4-Dinitrotoluene	41.8	0.18	1.0	ug/l	50.0	84	39-139	1	30		
2,6-Dinitrotoluene	40.0	0.27	1.0	ug/l	50.0	80	50-158	13	30		
2-Chloronaphthalene	38.7	0.45	1.0	ug/l	50.0	77	60-118	22	30		
2-Chlorophenol	28.8	0.28	1.0	ug/l	50.0	58	23-134	13	30		
2-Methyl-4,6-dinitrophenol	49.9	1.7	5.0	ug/l	50.0	100	0.1-181	0.2	30		
2-Nitrophenol	27.5	0.26	1.0	ug/l	50.0	55	29-182	33	30		Q-12
3,3'-Dichlorobenzidine	32.9	1.2	5.0	ug/l	50.0	66	0.1-262	12	30		
4,6-Dinitro-2-methylphenol	49.9	1.7	5.0	ug/l	50.0	100	0.1-181	0.2	30		
4-Bromophenyl phenyl ether	36.6	0.36	1.0	ug/l	50.0	73	53-127	5	30		
4-Chloro-3-methylphenol	36.9	0.23	1.0	ug/l	50.0	74	22-147	12	30		
4-Chlorophenyl phenyl ether	41.0	0.41	1.0	ug/l	50.0	82	25-158	10	30		
4-Nitrophenol	20.4	0.45	5.0	ug/l	50.0	41	0.1-132	3	30		
Acenaphthene	39.0	0.38	1.0	ug/l	50.0	78	47-145	11	30		
Acenaphthylene	42.9	0.40	1.0	ug/l	50.0	86	33-145	20	30		
Anthracene	40.0	0.34	1.0	ug/l	50.0	80	27-133	3	30		
Benzo (a) anthracene	38.9	0.19	1.0	ug/l	50.0	78	33-143	23	30		
Benzo (a) pyrene	59.7	0.13	1.0	ug/l	50.0	119	17-163	30	30		
Benzo (b) fluoranthene	57.2	0.14	1.0	ug/l	50.0	114	24-159	23	30		
Benzo (g,h,i) perylene	25.1	0.10	2.0	ug/l	50.0	50	0.1-219	1	30		
Benzo (k) fluoranthene	49.6	0.22	1.0	ug/l	50.0	99	11-162	19	30		
Benzyl butyl phthalate	35.0	0.18	1.0	ug/l	50.0	70	0.1-152	25	30		
Bis(2-chloroethoxy)methane	28.4	0.25	1.0	ug/l	50.0	57	33-184	34	30		Q-12
Bis(2-chloroethyl)ether	29.8	0.27	1.0	ug/l	50.0	60	12-158	7	30		
Bis(2-chloroisopropyl)ether	29.1	0.38	1.0	ug/l	50.0	58	36-166	16	30		
Bis(2-ethylhexyl)phthalate	33.4	2.3	5.0	ug/l	50.0	67	8-158	21	30		
Butyl benzyl phthalate	35.0	0.18	1.0	ug/l	50.0	70	0.1-152	25	30		
Chrysene	46.0	0.19	1.0	ug/l	50.0	92	17-168	1	30		
Dibenzo (a,h) anthracene	30.9	0.080	2.0	ug/l	50.0	62	0.1-227	4	30		
Diethyl phthalate	41.2	0.15	1.0	ug/l	50.0	82	0.1-114	4	30		
Dimethyl phthalate	43.8	0.18	1.0	ug/l	50.0	88	0.1-112	16	30		
Di-n-butyl phthalate	36.8	0.24	1.0	ug/l	50.0	74	1-118	1	30		
Di-n-octyl phthalate	48.7	0.19	1.0	ug/l	50.0	97	4-146	25	30		
Fluoranthene	37.5	0.22	1.0	ug/l	50.0	75	26-137	1	30		
Fluorene	42.6	0.35	1.0	ug/l	50.0	85	59-121	9	30		



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1536 Eastman Avenue
Ventura CA, 93003

Date Received: 04/15/14 12:00
Date Reported: 04/21/14 14:31

Acid and Base/Neutral Extractables by EPA Method 625 - Quality Control

Batch W4D0750 - EPA 625

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	% REC Limits	RPD	RPD Limit	Data Qualifiers
LCS Dup (W4D0750-BSD1)											
					Analyzed: 04/17/14 22:00						
Hexachlorobenzene	44.9	0.49	1.0	ug/l	50.0	90	0.1-152	3	30		
Hexachlorobutadiene	41.0	0.47	1.0	ug/l	50.0	82	24-116	16	30		
Hexachlorocyclopentadiene	24.3	1.5	5.0	ug/l	50.0	49	0.1-81	12	30		
Hexachloroethane	27.7	0.52	1.0	ug/l	50.0	55	40-113	35	30	Q-12	
Indeno (1,2,3-cd) pyrene	29.6	0.12	2.0	ug/l	50.0	59	0.1-171	0.6	30		
Isophorone	26.2	0.21	1.0	ug/l	50.0	52	21-196	32	30	Q-12	
Naphthalene	37.1	0.49	1.0	ug/l	50.0	74	21-133	16	30		
Nitrobenzene	28.8	0.36	1.0	ug/l	50.0	58	35-180	34	30	Q-12	
N-Nitrosodimethylamine	23.4	0.14	1.0	ug/l	50.0	47	15-59	9	30		
N-Nitrosodi-n-propylamine	26.3	0.26	1.0	ug/l	50.0	53	0.1-230	39	30	Q-12	
N-Nitrosodiphenylamine	33.4	0.19	1.0	ug/l	50.0	67	42-90	2	30		
Pentachlorophenol	44.7	0.19	1.0	ug/l	50.0	89	14-176	0.07	30		
Phenanthrene	45.6	0.32	1.0	ug/l	50.0	91	54-120	3	30		
Phenol	11.6	0.16	1.0	ug/l	50.0	23	5-112	10	30		
Pyrene	37.6	0.25	1.0	ug/l	50.0	75	52-115	2	30		
<i>Surr: 2,4,6-Tribromophenol</i>	89.5			ug/l	100	90	25-102				
<i>Surr: 2-Fluorobiphenyl</i>	40.1			ug/l	50.0	80	22-107				
<i>Surr: 2-Fluorophenol</i>	36.4			ug/l	100	36	3-74				
<i>Surr: Nitrobenzene-d5</i>	27.8			ug/l	50.0	56	27-111				
<i>Surr: Phenol-d5</i>	25.8			ug/l	100	26	0.1-53				
<i>Surr: Terphenyl-d14</i>	38.5			ug/l	50.0	77	28-113				



WECK LABORATORIES, INC.

Analytical Laboratory Service - Since 1964

Capco Analytical Services
1536 Eastman Avenue
Ventura CA, 93003

Date Received: 04/15/14 12:00
Date Reported: 04/21/14 14:31

Notes and Definitions

S-11	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
Q-12	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on the percent recoveries and/or other acceptable QC data.
M-05	Due to the nature of matrix interferences, sample was diluted prior to analysis. The MDL and MRL were raised due to the dilution.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
NR	Not Reportable
Dil	Dilution
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity
MRL	Method Reporting Limit

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

Page 9 of 9

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LTS Environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003

805-644-4560

Report to: Freeport McMoRan O&G
c/o LTS, 704 Adirondack Ave
Ventura, CA 93003

Bill to: Freeport McMoRan O&G
700 Milam, Ste. 3100
Houston, Tx 77002

FACILITY: Platform Harvest

COLLECTOR: LTS /

PROJECT/CHARGE # Annual NPDES Produced Water Monitoring

RESULTS REQUIRED: normal

RESULTS BY: PHONE: _____ FAX: _____

SUBMITTED TO: Capco Analytical Services
REPORT TO: S.G. Lawry @ LTS
COPIES TO: Platform Supervisor (201 S Broadway, Orcutt)
Ruth Juris (email) **PHONE:** _____

4/18

4/21

140951

SAMPLE NO.	SAMPLE ID	GRAB/COMP.	VOLUME	DATE/TIME COLLECTED	PRESERV.	ANALYSES REQUESTED (METHOD)	
						H ₂ SO ₄	Ammonia (EPA 350)
1	NPDES Prod.Water	grab	500 mL plastic	4/8/14 10:30	H ₂ SO ₄	MDL: 2 mg/L	MDL: 30 ug/L
2	NPDES Prod.Water	grab	1 L plastic	4/8/14 10:30	HNO ₃	Metals: Copper	MDL: 2 ug/L
4	NPDES Prod.Water	grab	1L Amber	4/8/14 10:30	EPA 625:	Benz(a)anthracene Benz(a)pyrene Chrysene Benz(b)fluoranthene Benz(k)fluoranthene Dibenz(a,h)anthracene	MDL: 2 ug/L MDL: 2 ug/L MDL: 2 ug/L MDL: 2 ug/L MDL: 2 ug/L MDL: 2 ug/L
5	NPDES Prod.Water	grab	500 mL plastic	4/8/14 10:30	NaOH-Zn	Dissolved Sulfides (Method SM4500S-2F) (Dissolved sulfides were preserved & filtered in the field prior to submittal)	MDL: 20 ug/L
6	Ocean Water @ Fire Water pumps	grab		4/9/14 4:15	100	Conductivity	

Comments:

Capco: Please report MDLs and PQs on lab report

Relinquished by:	<i>CG</i>	Date: <u>4-11-14</u>
Received by:	<i>JL</i>	Time: <u>12:10</u>

Relinquished by:	<i>CG</i>	Date: <u>4-11-14</u>
Received by:	<i>JL</i>	Time: <u>12:10</u>

Relinquished by:	<i>CG</i>	Date: <u>4-11-14</u>
Received by:	<i>JL</i>	Time: <u>12:10</u>

Relinquished by:	<i>CG</i>	Date: <u>4-11-14</u>
Received by:	<i>JL</i>	Time: <u>12:10</u>



Environmental and Analytical Services-Since 1994

California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

Prepared for: Freeport McMoRan O&G
C/O: LTS environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
Attn: Steve Lawry

Report Date: April 18, 2014

Laboratory Number: 140952

Project Name: PF Harvest Monthly NPDES Produced Water Monitoring Benzene

Sampled by: Client

4/8

On April 11, 2014, Capco Analytical Services, Inc. (CAS), received one(1) sample to be analyzed. The sample was identified and assigned the laboratory ID number listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
NPDES PROD. WATER	140952-01

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Keith Chin-Yuan Chang, Ph.D.
Director - Analytical Operations

cc: BF Harvest @-Orcutt
Ruth Juris @-EDT

If you have any further questions or concerns, please contact me at your convenience.
This report consists of 1 page excluding the cover letter and the Chain of Custody.

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Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

Client: FM O&G
Matrix: WATER
Analyst: LL/GP

Date Sampled: 4/8/14
Date Received: 4/11/14
Date Analyzed: 4/15/14

BENZENE

EPA METHOD 602

Compound	Results ug/L	Dilution Factor	MDL ug/L	PQL ug/L	Surrogate %Recovery
CAS Lab # :	MB-041614				
Client ID :	METHOD BLANK				
	BQL	1	0.1	0.5	76%
CAS Lab # :	140952 -01				
Client ID :	NPDES PROD. WATER				
	4452	200	20	100	100%

LTS Environmental, Inc. 704 Adirondack Avenue Ventura, CA 93003	Report to: <i>c/o</i>	Freeport McMoRan O&G LTS, 704 Adirondack Ave Ventura, CA 93003	Bill to: Freeport McMoRan O&G 700 Milam, Ste. 3100 Houston, Tx 77002	14 0952
---	---------------------------------	--	--	----------------

FACILITY: LTS / Platform Harvest
 COLLECTOR: LTS / Monthly NPDES Produced Water Monitoring
 PROJECT/CHARGE #: normal
 RESULTS REQUIRED:
 RESULTS BY: PHONE: _____ FAX: _____

SUBMITTED TO: Capco Analytical Services
 REPORT TO: S.G. Lawry @ LTS PHONE: 644-4560
 COPIES TO: Platform Supervisor (201 S Broadway, Orcutt)
 Ruth Juris (email) PHONE: _____

4/18
4/21

SAMPLE NO.	SAMPLE ID	GRAB/COMP.	VOLUME	DATE/TIME COLLECTED	PRESERV.	ANALYSES REQUESTED (METHOD)	MDL: 3 ug/L
1	NPDES Prod.Water	grab	2 40 mL VOA	4. 3. 14 10:30	* ice	EPA 602: Benzene	
						Dissolved Sulfides and Conductivity: please see annual NPDES chain	

Comments: * Analyse EPA 602 in 7 days - no preservative (HCl) added due to high bicarb.levels.

Capco: Please report MDLs and PQLs on lab report

Relinquished by: _____ Date: _____ Time: _____
 Received by: _____ Date: _____ Time: _____
 Relinquished by: _____ Date: _____ Time: _____
 Received by: _____ Date: _____ Time: _____

4/18
4/21

Relinquished by: <i>C.L. Jones</i>	Date: <u>4/11/14</u>
Received by: <i>C.L. Jones</i>	Time: <u>10:10</u>

Relinquished by: _____	Date: _____
Received by: _____	Time: _____



Environmental and Analytical Services-Since 1994

California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

Prepared for: Freeport McMoRan O&G
C/O: LTS environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
Attn: Steve Lawry

Report Date: April 16, 2014

Laboratory Number: 140950

Project Name: PF Harvest wk(2) Weekly NPDES

Sampled by: Client

4/8

On April 11, 2014, Capco Analytical Services, Inc. (CAS), received four (4) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
D.O./NPDES	140950-01
D.O./NPDES	140950-02*
D.O./NPDES	140950-03*
D.O./NPDES	140950-04*

*HOLD PER CUSTOMER'S REQUEST

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Keith Chin-Yuan Chang, Ph.D.
Director - Analytical Operations

cc: PF Harvest @-Orcutt
Ruth Juris @-EDT

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Analytical Services, Inc.

Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Freeport McMoRan O&G (PF Harvest) Date Sampled: 04/08/14
CAS LAB NO: 140950 Date Received: 04/11/14
Analyst: GM Date Analyzed: 04/14/14
Sample Matrix: Water

OIL & GREASE ANALYSIS
EPA METHOD 1664

CAS LAB #	Sample ID	RESULTS	DF	MDL (mg/L)	PQL (mg/L)
		(mg/L)			
140950-01	D.O/NPDES	3.9	1	1	5

QUALITY CONTROL DATA

140950-MB	Method Blank	ND	1	1	5
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Chain of Custody

LTS Environmental, Inc.

704 Adirondack Avenue

Ventura, CA 93003

805-644-4560

Facility:

Collector:

Project/Charge #

Results Required:

Results By: Phone:

Harvest wk(2)

C73

Weekly NPDES

Normal

FAX:

Report to FM O&G c/o Steve Lawry

Bill to: Accounts Payable

700 Milam Ste 3100

Houston, TX, 77002

Submitted To: Capco Analytical Services

4/18

Report To:

Phone: 644-4560

Copies To:

Phone: 644-4560

Platform Supervisor

201 S Broadway,

Orcutt, CA 93455

Ruth Juris

SAMPLE NO.

SAMPLE ID/LOCATION

GRAB/ COMP.

VOLUME

DATE/TIME COLLECTED

Pre-Serv

ANALYSES REQUESTED (METHOD)

140.950

1

D.O./NPDES

grab

1

Date: 4.3.14

Time: 730

EPA 1664

Abs(5) IR(11)

2

/

800

IR 5 : P-11

3

/

830

IR 5 : P-11

4

↓

↓

↓

Comments: Run #1. Hold rest.

Relinquished by:	<u>C. D. J.</u>	Date: <u>4.11.14</u>
Received by:	<u>C. J.</u>	Time: <u>1216</u>
Relinquished by:	<u> </u>	Date: <u> </u>
Received by:	<u> </u>	Time: <u> </u>

Relinquished by:	<u> </u>	Date: <u> </u>
Received by:	<u> </u>	Time: <u> </u>
Relinquished by:	<u> </u>	Date: <u> </u>
Received by:	<u> </u>	Time: <u> </u>



Environmental and Analytical Services-Since 1994

California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

Prepared for: Freeport McMoRan O&G
C/O: LTS environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
Attn: Steve Lawry

Report Date: April 24, 2014

Laboratory Number: 140998

Project Name: PF Harvest wk(3) Weekly NPDES

Sampled by: Client 4/15

On April 16, 2014, Capco Analytical Services, Inc. (CAS), received four(4) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
D.O./NPDES	140998-01
D.O./NPDES	140998-02*
D.O./NPDES	140998-03*
D.O./NPDES	140998-04*

*HOLD PER CUSTOMER'S REQUEST

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Keith Chin-Yuan Chang, Ph.D.
Director - Analytical Operations

cc: PF Harvest @-Orcutt
Ruth Juris @-EDT

If you have any further questions or concerns, please contact me at your convenience.
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Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Freeport McMoRan O&G (PF Harvest)
CAS LAB NO: 140998
Analyst: GM

Date Sampled: 04/15/14
Date Received: 04/16/14
Date Analyzed: 04/21/14
Sample Matrix: Water

OIL & GREASE ANALYSIS EPA METHOD 1664

CAS LAB #	Sample ID	RESULTS		MDL (mg/L)	PQL (mg/L)
		(mg/L)	DF		
140998-01	D.O./NPDES	10	1	1	5

QUALITY CONTROL DATA

140998-MB	Method Blank	ND	1	1	5
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140998

Chain of Custody

LTS Environmental, Inc.

704 Adirondack Avenue

Ventura, CA 93003

805-644-4560

Report to FM O&G c/o S. Lawry

Bill to: Accounts Payable

700 Milan Ste 3100
Houston, TX 77002

FACILITY:

LTS

COLLECTOR:

Harvest wk(3) NPDES

PROJECT/CHARGE #

Weekly NPDES

RESULTS REQUIRED:

Normal

RESULTS BY: PHONE:

FAX:

SUBMITTED TO: Capco Analytical Services
REPORT TO: LTS
COPIES TO: Platform SupervisorPHONE: 644-4560
201 S. Broadway,
PHONE:

Ruth Juris

SAMPLE NO.

SAMPLE ID/LOCATION

GRAB/

VOLUME

DATE/TIME

COLLECTED

Pre-

serv

HCl

EPA 1664

Abs

(28)

IR

(19)

1 D.O./NPDES

grab

1

Date: 4/15/14

Time: 1500

1

1515

1

Abs (25) IR (18)

2

grab

1

Date: 4/15/14

Time: 1530

1

1545

1

Operations just coming back from a shut-down.

BOL sample. IR (22) From around an hour before

3

grab

1

Date: 4/15/14

Time: 1545

1

1545

1

Operations just coming back from a shut-down.

BOL sample. IR (22) From around an hour before

4

grab

1

Date: 4/15/14

Time: 1545

1

1545

1

Operations just coming back from a shut-down.

BOL sample. IR (22) From around an hour before

Comments: Run #1. Hold rest.

Relinquished by: C. Q. ... Date: 4/16/14
Received by: 12/25Relinquished by: _____ Date: _____
Received by: _____ Time: _____Relinquished by: J. C. ... Date: 4/16/14
Received by: 12/25Relinquished by: _____ Date: _____
Received by: _____ Time: _____

Prepared for: Freeport McMoRan O&G
C/O: LTS environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
Attn: Steve Lawry

Report Date: April 25, 2014

Laboratory Number: 141062

Project Name: PF Harvest wk(4) Weekly NPDES

Sampled by: Client

4/22

On April 23, 2014, Capco Analytical Services, Inc. (CAS), received four (4) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
D.O./NPDES	141062-01
D.O./NPDES	141062-02*
D.O./NPDES	141062-03*
D.O./NPDES	141062-04*

*HOLD PER CUSTOMER'S REQUEST

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.



Keith Chin-Yuan Chang, Ph.D.
Director - Analytical Operations

cc: PF Harvest @-Orcutt
Ruth Juris @-EDT

If you have any further questions or concerns, please contact me at your convenience.
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Environmental and Analytical Services-Since 1994

California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Freeport McMoRan O&G (PF Harvest)
CAS LAB NO: 141062
Analyst: GM

Date Sampled: 04/22/14
Date Received: 04/23/14
Date Analyzed: 04/24/14
Sample Matrix: Water

OIL & GREASE ANALYSIS EPA METHOD 1664

CAS LAB #	Sample ID	RESULTS	MDL	PQL	
		(mg/L)	DF	(mg/L)	(mg/L)
141062-01	D.O./NPDES	22	1	1	5

QUALITY CONTROL DATA

141062-MB	Method Blank	ND	1	1	5
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Chain of Custody

LTS Environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003

805-644-4560

FACILITY:

COLLECTOR:

PROJECT/CHARGE #

RESULTS REQUIRED:

RESULTS BY: PHONE:

Harvest wk(4) NPDES

LTS
Weekly NPDES

Normal

FAX: _____

Report to FM O&G c/o S. Lawry

Bill to: Accounts Payable
700 Milam Ste 3100
Houston, TX, 77002

4125

SUBMITTED TO: Capco Analytical Services
REPORT TO: _____
COPIES TO: _____

Platform Supervisor
201 S. Broadway,
Orcutt, CA 93455
Ruth Juris

PHONE: _____
PHONE: 644-4560
PHONE: _____

SAMPLE NO.

SAMPLE ID/LOCATION

GRAB/ COMP.

VOLUME

DATETIME COLLECTED

ANALYSES REQUESTED (METHOD)

141062

1
D.O./NPDES

grab

1

Date: 4/22/14

Time: 1930

H/C

EPA 1664 Abs (38) IR (25) 48 hour RUSH

2

grab

1

2000

on line : 13 2/00 & 16. 1

3

grab

1

2030

IR & (25-23)

4

grab

1

2100

Ruth Juris

SH
4/23/14

Comments:
Run #1. Hold rest.

Relinquished by:		Date: <u>4-23-14</u>
Received by:		Time: <u>1400</u>
Relinquished by:		Date: _____
Received by:		Time: _____

Relinquished by:		Date: _____
Received by:		Time: _____
Relinquished by:		Date: _____
Received by:		Time: _____



Environmental and Analytical Services-Since 1994

California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

Prepared for: Freeport McMoRan O&G
C/O: LTS environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
Attn: Steve Lawry

Report Date: May 1, 2014

Laboratory Number: 141123

Project Name: PF Harvest wk(5) NPDES Weekly

Sampled by: Client

4/20

On April 30, 2014, Capco Analytical Services, Inc. (CAS), received four (4) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
D.O./NPDES	141123-01
D.O./NPDES	141123-02*
D.O./NPDES	141123-03*
D.O./NPDES	141123-04*

*HOLD PER CUSTOMER'S REQUEST

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Keith Chin-Yuan Chang, Ph.D.
Director - Analytical Operations

cc: PF Harvest @-Orcutt
Ruth Juris @-EDT

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Environmental and Analytical Services-Since 1994

California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Freeport McMoRan O&G (PF Harvest)
CAS LAB NO: 141123
Analyst: GM

Date Sampled: 04/29/14
Date Received: 04/30/14
Date Analyzed: 05/01/14
Sample Matrix: Water

OIL & GREASE ANALYSIS EPA METHOD 1664

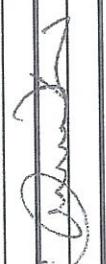
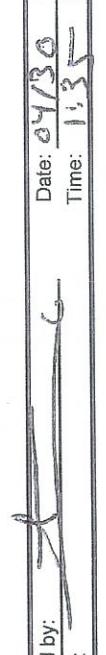
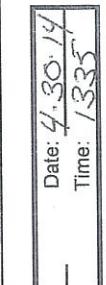
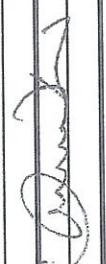
CAS LAB #	Sample ID	RESULTS	MDL (mg/L)	POL (mg/L)
		(mg/L)		
141123-01	D.O./NPDES	4.1	1	1

QUALITY CONTROL DATA

141123-MB	Method Blank	ND	1	1	5
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141123

Chain of Custody

Report to Plains c/o S. Lawry		Bill to: Accounts Payable 700 Milam Ste 3100 Houston, TX, 77002																																																																														
<p style="text-align: center; color: red; font-size: 2em;">5/2</p>																																																																																
<p style="text-align: center; color: red; font-size: 2em;">5/8</p>																																																																																
<p>LTS Environmental, Inc. 704 Adirondack Avenue Ventura, CA 93003 805-644-4560</p> <p>FACILITY: Harvest w/k(5) NPDES</p> <p>COLLECTOR: LTS</p> <p>PROJECT/CHARGE #</p> <p>RESULTS REQUIRED: Normal</p> <p>RESULTS BY: PHONE: FAX: _____</p>		<p>SUBMITTED TO: Capco Analytical Services</p> <p>REPORT TO: PHONE: _____</p> <p>COPIES TO: Platform Supervisor 201 S. Broadway, Orcutt, CA 93455</p> <p>PHONE: 644-4560</p> <p>PHONE: _____</p>																																																																														
<table border="1"> <thead> <tr> <th>SAMPLE NO.</th> <th>SAMPLE ID/LOCATION</th> <th>GRAB/COMP.</th> <th>VOLUME</th> <th>DATE/TIME COLLECTED</th> <th>Pre-serv</th> <th>ANALYSES REQUESTED (METHOD)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>D.O./NPDES</td> <td>grab</td> <td>1</td> <td>Date: 4/29/14 Time: 715</td> <td>HC</td> <td>EPA 1664</td> </tr> <tr> <td>2</td> <td></td> <td>grab</td> <td>1</td> <td>715</td> <td></td> <td>Duplicate</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>*RLC did not deliver my cooler to the platform so I had to im-provise: (2) clean amber bottles used from platform supplies.</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>online Hach: 7 2100Q: 5.10</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>Re-calibration: 20 ppm (20.7), 100 ppm (98.8) 800 ppm (798). Vertical pass (9.98 ppm).</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>				SAMPLE NO.	SAMPLE ID/LOCATION	GRAB/COMP.	VOLUME	DATE/TIME COLLECTED	Pre-serv	ANALYSES REQUESTED (METHOD)	1	D.O./NPDES	grab	1	Date: 4/29/14 Time: 715	HC	EPA 1664	2		grab	1	715		Duplicate							*RLC did not deliver my cooler to the platform so I had to im-provise: (2) clean amber bottles used from platform supplies.														online Hach: 7 2100Q: 5.10							Re-calibration: 20 ppm (20.7), 100 ppm (98.8) 800 ppm (798). Vertical pass (9.98 ppm).																												
SAMPLE NO.	SAMPLE ID/LOCATION	GRAB/COMP.	VOLUME	DATE/TIME COLLECTED	Pre-serv	ANALYSES REQUESTED (METHOD)																																																																										
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						Re-calibration: 20 ppm (20.7), 100 ppm (98.8) 800 ppm (798). Vertical pass (9.98 ppm).																																																																										
<p>Comments: Run #1. #2 is a duplicate sample.</p>																																																																																
<p>Relinquished by:  Received by: _____</p>		<p>Relinquished by:  Received by: _____</p>																																																																														
<p>Relinquished by:  Received by: _____</p>		<p>Relinquished by:  Received by: _____</p>																																																																														



Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

Prepared for: Freeport McMoRan O&G
C/O: LTS environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
Attn: Steve Lawry

Report Date: June 16, 2014

Laboratory Number: 141508

Project Name: PF Harvest NPDES Produced Water Weekly

Sampled by: Client 6/b

On June 9, 2014, Capco Analytical Services, Inc. (CAS), received four (4) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
PRODUCED WATER DIFFUSER	141508-01
PRODUCED WATER DIFFUSER	141508-02*
PRODUCED WATER DIFFUSER	141508-03*
PRODUCED WATER DIFFUSER	141508-04*

*HOLD PER CUSTOMER'S REQUEST

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

RJ Law for
Keith Chin-Yuan Chang, Ph.D.
Director - Analytical Operations

cc: PF Harvest @-Orcutt
Ruth Juris @-EDT

If you have any further questions or concerns, please contact me at your convenience.
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Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Freeport McMoRan O&G (PF Harvest) Date Sampled: 06/06/14
CAS LAB NO: 141508 Date Received: 06/09/14
Analyst: GM Date Analyzed: 06/11/14
Sample Matrix: Water

OIL & GREASE ANALYSIS EPA METHOD 1664

CAS LAB #	Sample ID	RESULTS		MDL (mg/L)	PQL (mg/L)
		(mg/L)	DF		
141508-01	Produced Water Diffuser	7.6	1	1	5

QUALITY CONTROL DATA

141508-MB	Method Blank	ND	1	1	5
-----------	--------------	----	---	---	---

141508

LTS ENVIRONMENTAL, INC.

704 Adirondack Avenue

Ventura, CA 93003

305-644-4560

Report to: FM O&G c/o Steve Lawry**Bill to: FM O&G**

Accounts Payable

700 Milam Ste 3100
Houston, TX, 77002
*6/16
6/17***FACILITY:**

LTS / CIP

NPDES Produced Water Weekly

PROJECT/CHARGE #

RESULTS REQUIRED:

RESULTS BY: PHONE:

FAX:

SUBMITTED TO:

Capco Analytical

PHONE: _____

REPORT TO:

Platform Supervisor

FAX: _____
PHONE: 644-4560**COPIES TO:**

201 S. Broadway

CC:

Ruth Juris

COLLECTOR:

LTS / CIP

Standard

RESULTS BY: PHONE:

FAX:

SAMPLE NO.	SAMPLE ID/LOCATION	GRAB/COMP.	VOLUME	DATETIME COLLECTED	PRE-SERV.	ANALYSES REQUESTED (METHOD)
1	Produced water	Grab	1	06/04/14 0230	HCl	O&G (EPA 1664)
2	<i>PFMSR</i>			<i>0330</i>		
3				<i>0400</i>		
4				<i>0430</i>		

Comments: Run #1; Hold 2-4 4:18p (1056), 1:18(13), 2:42(28), 3:22(162), 4:21(15)

Relinquished by:	<i>John L</i>	Date:	<i>6/4/14</i>
Received by:	<i>CJ</i>	Time:	<i>2:40</i>

Relinquished by:		Date:	
Received by:		Time:	

Relinquished by:	<i>John L</i>	Date:	<i>6/4/14</i>
Received by:	<i>CJ</i>	Time:	<i>2:40</i>

Relinquished by:		Date:	
Received by:		Time:	



Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

Prepared for: Freeport McMoRan O&G
C/O: LTS Environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
Attn: Steve Lawry

Report Date: June 17, 2014

Laboratory Number: 141503

Project Name: PF Harvest Monthly Sulfides-NPDES

b6

On June 9, 2014, Capco Analytical Services, Inc. (CAS), received one(1) sample to be analyzed. The sample was identified and assigned the laboratory ID number listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
PRODUCED WATER DIFFUSER	141503-01

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

R. Lawry for
Keith Chin-Yuan Chang, Ph.D.
Director - Analytical Operations

cc: PF Harvest Supervisor @-Orcutt
Ruth Juris-EDT

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Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Freeport McMoRan (PF Harvest)
CAS LAB NO: 141503
Analyzed By: AN

Date Sampled: 06/06/14
Date Received: 06/09/14
Date Analyzed: 06/16/14
Sample Matrix: Water

DISSOLVED SULFIDE EPA METHOD 4500S⁻²F

CAS LAB #	Sample ID	RESULTS (mg/L)	DF	MDL (mg/L)	PQL (mg/L)
141503-01	Produced Water Diffuser	83	1	0.04	0.2

QUALITY CONTROL DATA

141503-MB	Method Blank	ND	1	0.04	0.2
-----------	--------------	----	---	------	-----

mg/L: Milligrams/Liter (ppm)

DF: Dilution Factor

141503

LTS ENVIRONMENTAL, INC. 704 Adirondack Avenue Ventura, CA 93003 805-644-4560				Report to: FM O&G c/o Steve Lawry				Bill to: FM O&G Accounts Payable 700 Milam Ste 3100 Houston, TX, 77002			
FACILITY: COLLECTOR: PROJECT/CHARGE #: RESULTS REQUIRED: RESULTS BY: PHONE:				SUBMITTED TO: REPORT TO: COPIES TO: FAX:				Capco Analytical PHONE: FAX: PHONE: PHONE: cc: Ruth Juris			
<i>1. Samples</i> LTS - <i>Lets Test</i> Monthly Sulfides - <i>PPES</i> Standard				DATE/TIME COLLECTED				PRE-SERV. ZnCl4 Dissolved Sulfides			
SAMPLE NO. 1 <i>Produced water</i> <i>1st fl user</i>				GRAB/COMP. Grab 1				06/06/04 0530			
ANALYSES REQUESTED (METHOD)											
Comments: <i>First test to analyze 30 May 12</i>											
Relinquished by: <i>Ruth Juris</i> Received by:		Date: <i>10/14</i> Time: <i>2:30</i>		Relinquished by: <i>Ruth Juris</i> Received by:		Date: _____ Time: _____					
Relinquished by: <i>Ruth Juris</i> Received by:		Date: _____ Time: _____		Relinquished by: <i>Ruth Juris</i> Received by:		Date: _____ Time: _____					



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

Prepared for: Freeport McMoRan O&G
C/O: LTS environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
Attn: Steve Lawry

Report Date: June 17, 2014

Laboratory Number: 141567

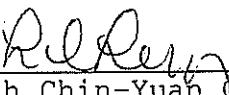
Project Name: PF Harvest Monthly NPDES Produced Water Monitoring

Sampled by: Client 6/12

On June 13, 2014, Capco Analytical Services, Inc. (CAS), received two(2) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
NPDES PROD. WATER	141567-01
OCEAN WATER @FIRE WATER PUMPS	141567-02

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.


For.
Keith Chin-Yuan Chang, Ph.D.
Director - Analytical Operations

cc: PF Harvest @Orcutt
Ruth Juris @EDT

If you have any further questions or concerns, please contact me at your convenience.
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Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

Client:	FM O&G	Date Sampled:	06/12/14
Matrix:	WATER	Date Received:	06/13/14
Analyst:	GP	Date Analyzed:	06/16/14

BENZENE

EPA METHOD 602

Compound	Results ug/L	Dilution Factor	MDL ug/L	PQL ug/L	Surrogate &Recovery
CAS Lab # :	MB-061614				
Client ID :	METHOD BLANK BQL	06/16/14 1	0.2	1.0	79%
CAS Lab # :	141567 -01				
Client ID :	NPDES PROD. WATER 5212	06/16/14 200	40	200	84%



Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Freeport McMoRan (PF Harvest)
CAS LAB NO: 141567
Analyst: GP

Date Sampled: 06/12/14
Date Received: 06/13/14
Date Analyzed: 06/13/14
Sample Matrix: Water

SPECIFIC CONDUCTIVITY
EPA Method 120.1

CAS LAB #	Sample ID	RESULTS (μ S/cm)	DF	PQL (μ S/cm)
141567-01	Ocean Water @-Fire Water Pumps	49700	1	1

141567

LTS Environmental, Inc. 704 Adirondack Avenue Ventura, CA 93003 805-644-4560	Report to: Freeport McMoRan O&G c/o LTS, 704 Adirondack Ave Ventura, CA 93003	Bill to: Freeport McMoRan O&G 700 Milam, Ste. 3100 Houston, Tx 77002
FACILITY: Platform Harvest LTS / Monthly NPDES Produced Water Monitoring normal	COLLECTOR: Project Charge #	RESULTS REQUIRED: Normal
RESULTS BY: PHONE: FAX: _____		

SAMPLE					ANALYSES REQUESTED (METHOD)				
SAMPLE NO.	SAMPLE ID	GRAB/ COMP.	VOLUME	DATE/TIME COLLECTED	PRESERV.	EPA 602:	Benzene	MDL: 3 ug/L	
1	NPDES Prod.Water Ocean Water @ Fire Water pumps	grab	240 mL VOA	12/14 300	* ice				
				12/14 3/5		Conductivity			

Comments: * Analyse EPA 602 in 7 days - no preservative (HCl) added due to high bicarb. levels.

Capco: Please report MDLs and PQLs on lab report

Relinquished by: Ruth Juris Date: 12/15/01 Received by: _____ Time: 1235

Relinquished by: _____ Date: _____ Received by: _____ Time: _____

Relinquished by: _____ Date: _____ Received by: _____ Time: _____

Relinquished by: _____ Date: _____ Received by: _____ Time: _____

Relinquished by: _____ Date: _____ Received by: _____ Time: _____



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

Prepared for: Freeport McMoRan O&G
C/O: LTS environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
Attn: Steve Lawry

Report Date: June 19, 2014

Laboratory Number: 141566

Project Name: PF Harvest wk(2) weekly NPDES

Sampled by: Client 6/12

On June 13, 2014, Capco Analytical Services, Inc. (CAS), received four (4) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
D.O.	141566-01
D.O.	141566-02*
D.O.	141566-03*
D.O.	141566-04*

*HOLD PER CUSTOMER'S REQUEST

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Keith Chin-Yuan Chang, Ph.D.
Director - Analytical Operations

cc: PF Harvest @-Orcutt
Ruth Juris @-EDT

If you have any further questions or concerns, please contact me at your convenience.
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Environmental and Analytical Services-Since 1994

California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Freeport McMoRan O&G (PF Harvest)
CAS LAB NO: 141566
Analyst: GM

Date Sampled: 06/12/14
Date Received: 06/13/14
Date Analyzed: 06/18/14
Sample Matrix: Water

OIL & GREASE ANALYSIS EPA METHOD 1664

CAS LAB #	Sample ID	RESULTS (mg/L)	DF	MDL (mg/L)	PQL (mg/L)
141566-01	D.O.	11	1	1	5

QUALITY CONTROL DATA

141566-MB	Method Blank	ND	1	1	5
-----------	--------------	----	---	---	---

141566

Chain of Custody

LTS Environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003

805-644-4560

Report to FM O&G c/o Steve Lawry

Bill to: Accounts Payable

700 Milam Ste 3100
Houston, TX, 77002

6/20

6/23

FACILITY:

LTS

COLLECTOR:

Weekly NPDES

PROJECT/CHARGE #

Normal

RESULTS REQUIRED:

FAX:

RESULTS BY: PHONE:

SUBMITTED TO: Capco Analytical Services
REPORT TO: Platform Supervisor
COPIES TO: 201 S. Broadway,
Orcutt, CA 93455

PHONE: 644-4560

PHONE:

201 S. Broadway,

PHONE:

Platform Supervisor

201 S. Broadway,

PHONE:

SAMPLE SAMPLE ID/LOCATION

GRAB/ VOLUME

DATETIME

Pre- serv

ANALYSES REQUESTED (METHOD)

NO.

COMP.

COLLECTED

EPA 1664

Abs (26) IR (19)

1

grab

1

Date: 6-12-14

Time: 830

HCI

2

grab

1

845

ntu : (9)

2100 Q : 16.1

3

grab

1

900

Sulfide field test : 120 ppm

4

grab

1

915

↓

Comments: _____

Relinquished by: John D Date: 6-13-14
Received by: John D Time: 12:30

Relinquished by: _____ Date: _____
Received by: _____ Time: _____

Relinquished by: _____ Date: _____
Received by: _____ Time: _____

Relinquished by: _____ Date: _____
Received by: _____ Time: _____

Prepared for: Freeport McMoRan O&G
C/O: LTS environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
Attn: Steve Lawry

Report Date: June 20, 2014

Laboratory Number: 141597

Project Name: PF Harvest wk(3) weekly NPDES

Sampled by: Client 6/6

On June 18, 2014, Capco Analytical Services, Inc. (CAS), received four (4) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
D.O.	141597-01
D.O.	141597-02*
D.O.	141597-03*
D.O.	141597-04*

*HOLD PER CUSTOMER'S REQUEST

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.



Keith Chin-Yuan Chang, Ph.D.
Director - Analytical Operations

cc: PF Harvest @-Orcutt
Ruth Juris @-EDT

If you have any further questions or concerns, please contact me at your convenience.
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Analytical Services, Inc.

Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Freeport McMoRan O&G (PF Harvest)
CAS LAB NO: 141597
Analyst: GM

Date Sampled: 06/16/14
Date Received: 06/18/14
Date Analyzed: 06/19/14
Sample Matrix: Water

OIL & GREASE ANALYSIS
EPA METHOD 1664

CAS LAB #	Sample ID	RESULTS (mg/L)	DF	MDL (mg/L)	POL (mg/L)
141597-01	D.O.	8.2	1	1	5

QUALITY CONTROL DATA

141597-MB	Method Blank	ND	1	1	5
-----------	--------------	----	---	---	---

141597

Chain of Custody

LTS Environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
805-644-4560

Report to FM O&G c/o Steve Lawry
Harvest CJK (3)

FACILITY:
COLLECTOR:

PROJECT/CHARGE #:
RESULTS REQUIRED:

RESULTS BY: PHONE: _____
FAX: _____

SUBMITTED TO: Capco Analytical Services
REPORT TO: PHONE:
COPIES TO: Platform Supervisor
201 S. Broadway,
Oroville, CA 93445
PHONE: _____

Comments: Run #1. Hold rest.

Relinquished by: C. J. DeLoach Date: 6/16/14
Received by: J. S. Loring Time: 10/15

Relinquished by: _____ Date: _____
Received by: _____ Time: _____

Relinquished by: _____ Date: _____
Received by: _____ Time: _____



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

Prepared for: Freeport-McMoRan Oil & Gas
C/O: LTS environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
Attn: Steve Lawry

Report Date: July 1, 2014

Laboratory Number: 141666

Project Name: PF Harvest wk(4) Weekly NPDES

Sampled by: Client 6/24

On June 26, 2014, Capco Analytical Services, Inc. (CAS), received four(4) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
D.O./NPDES	141666-01
D.O./NPDES	141666-02*
D.O./NPDES	141666-03*
D.O./NPDES	141666-04*

*HOLD PER CUSTOMER'S REQUEST

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Keith Chin-Yuan Chang, Ph.D.
Director - Analytical Operations

cc: PF Harvest @-Orcutt
Ruth Juris @-EDT

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Analytical Services, Inc.

Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Freeport-McMoRan Oil & Gas (PF Harvest) Date Sampled: 06/24/14
CAS LAB NO: 141666 Date Received: 06/26/14
Analyst: GM Date Analyzed: 06/30/14
Sample Matrix: Water

OIL & GREASE ANALYSIS
EPA METHOD 1664

CAS LAB #	Sample ID	RESULTS (mg/L)	MDL DF	PQL (mg/L)
141666-01	D.O./NPDES	5.1	1	1

QUALITY CONTROL DATA

141666-MB	Method Blank	ND	1	1	5
-----------	--------------	----	---	---	---

Chain of Custody

444666

LTS Environmental, Inc.

704 Adirondack Avenue

Ventura, CA 93003

805-644-4560

Report to FM O&G s c/o S. Lawry

Bill to: Accounts Payable

700 Milam Ste 3100

Houston, TX, 77002

FACILITY:

Harvest well #1

LTS

PROJECT/CHARGE #

Weekly NPDES

RESULTS REQUIRED:

Normal

RESULTS BY: PHONE:

FAX: _____

SUBMITTED TO:

Capco Analytical Services

PHONE: 713-214-1313

REPORT TO:

Platform Supervisor

PHONE: 644-4560

COPIES TO:

201 S. Broadway,

PHONE: 713-214-1313

Orcutt, CA 93455

Ruth Juris

ANALYSES REQUESTED (METHOD)

SAMPLE NO.	SAMPLE ID/LOCATION	GRAB/COMP.	VOLUME	DATE/TIME COLLECTED	Pre-serv
1	CV-NPDES	grab	1	Date: 6/24/14 Time: 1:20	EPA 1664 Abscis 18(13)
2	/	grab	1	1:25	
3		grab	1	1:30	
4	△	grab	1	1:45	
					Field notes
					Coring: 9' depth; 10.1
					173°F

Comments: Run #1. Hold rest.

Relinquished by: (Signature) Date: 6/24/14Received by: (Signature) Time: 11:15

Relinquished by: _____ Date: _____

Received by: _____ Time: _____

Relinquished by: _____ Date: _____

Received by: _____ Time: _____

Relinquished by: _____ Date: _____

Received by: _____ Time: _____



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

Prepared for: Freeport McMoRan O&G
C/O: LTS environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
Attn: Steve Lawry

Report Date: May 13, 2014

Laboratory Number: 141209

Project Name: PF Harvest wk(1) NPDES

Sampled by: Client 5/7

On May 8, 2014, Capco Analytical Services, Inc. (CAS), received four (4) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
D.O./NPDES	141209-01
D.O./NPDES	141209-02*
D.O./NPDES	141209-03*
D.O./NPDES	141209-04*

*HOLD PER CUSTOMER'S REQUEST

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Keith Chin-Yuan Chang, Ph.D.
Director - Analytical Operations

cc: PF Harvest @-Orcutt
Ruth Juris @-EDT

If you have any further questions or concerns, please contact me at your convenience.
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Analytical Services, Inc.

Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Freeport McMoRan O&G (PF Harvest)
CAS LAB NO: 141209
Analyst: GM

Date Sampled: 05/07/14
Date Received: 05/08/14
Date Analyzed: 05/12/14
Sample Matrix: Water

OIL & GREASE ANALYSIS
EPA METHOD 1664

CAS LAB #	Sample ID	RESULTS	DF	MDL	PQL
		(mg/L)		(mg/L)	(mg/L)
141209-01	D.O./NPDES	14	1	1	5

QUALITY CONTROL DATA

141209-MB Method Blank ND 1 1 5

941209

Chain of Custody

LTS Environmental, Inc.

704 Adirondack Avenue

Ventura, CA 93003

805-644-4560

Harvest Creek NPDES

COLLECTOR:

PROJECT/CHARGE #

RESULTS REQUIRED:

RESULTS BY: PHONE:

Ruth Juris

SAMPLE NO.

SAMPLE ID/LOCATION

GRAB/ COMP.

VOLUME

DATE/TIME COLLECTED

ANALYSES REQUESTED (METHOD)

1 D.O./NPDES

grab

1

Date: 5/7/14
Time: 1600

Hg/ EPA 1664

2

grab

1

1030

Abs (34) IR (23)

3

grab

1

1100

Online Hatch: 13.4 2/100 Q 16

4

grab

1

1130

↓

Report to FM O&G c/o S. Lawry							Bill to: Accounts Payable	5/15
							700 Milam Ste 3100	5/16
							Houston, TX, 77002	
FACILITY:	<i>Harvest Creek NPDES</i>	SUBMITTED TO:	Capco Analytical Services	REPORT TO:	Platform Supervisor	COPIES TO:	Platform Supervisor	PHONE: 644-4560
COLLECTOR:	<i>LTS</i>	Weekly NPDES		201 S. Broadway	Orcutt, CA 93455	PHONE:		
PROJECT/CHARGE #	Normal	RESULTS REQUIRED:		Ruth Juris				
RESULTS REQUIRED:		RESULTS BY: PHONE:						
RESULTS BY: PHONE:		FAX:						

Comments: Run #1. Hold rest.

Relinquished by:	<i>Chad J. S.</i>	Date: 5-8-14
Received by:		Time: 1150
Relinquished by:		Date: _____
Received by:		Time: _____

Relinquished by:		Date: _____
Received by:		Time: _____
Relinquished by:		Date: _____
Received by:		Time: _____



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

Prepared for: Freeport McMoRan O&G
C/O: LTS environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
Attn: Steve Lawry

Report Date: May 15, 2014

Laboratory Number: 141210

Project Name: PF Harvest Monthly NPDES Produced Water Monitoring

Sampled by: Client S/T

On May 8, 2014, Capco Analytical Services, Inc. (CAS), received three(3) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
NPDES PROD. WATER	141210-01
NPDES PROD. WATER	141210-04
OCEAN WATER @-FIRE WATER PUMPS	141210-03

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Keith Chin-Yuan Chang, Ph.D.
Director - Analytical Operations

cc: PF Harvest @ Orcutt
Ruth Juris @-EDT

If you have any further questions or concerns, please contact me at your convenience. This report consists of 3 pages excluding the cover letter and the Chain of Custody.

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Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

Client: FM O&G
Matrix: WATER
Analyst: KC

Date Sampled: 05/07/14
Date Received: 05/08/14
Date Analyzed: 05/09/14

Compound	Results ug/L	BENZENE		MDL ug/L	PQL ug/L	Surrogate ug/L	%Recovery
		EPA METHOD 602	Dilution Factor				
CAS Lab # :	MB-050814						
Client ID :	METHOD BLANK		05/08/14				
	BQL		1		0.2	1.0	91%
CAS Lab # :	141210	-01					
Client ID :	NPDES PROD. WATER		05/09/14				
	6565		500		100	500	94%



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Freeport McMoRan (PF Harvest)
CAS LAB NO: 141210
Analyst: AN

Date Sampled: 05/07/14
Date Received: 05/08/14
Sample Matrix: Water

WET CHEMISTRY SUMMARY

COMPOUND	RESULTS	UNITS	DF	PQL	MDL	METHOD	ANALYZED
CAS Lab#: 141210-02							
Sample ID: NPDES Prod. Water							
Dissolved Sulfide	157	mg/L	1	0.2	0.04	4500S ⁻² F	05/09/14
CAS Lab#: 141210-03							
Sample ID: Ocean Water @ Fire Water Pumps							
Spec. Conductivity	51200	umho/cm	1	1	--	120.1	05/08/14



Analytical Services, Inc.

Environmental and Analytical Services-Since 1994

California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

QUALITY CONTROL SECTION

Sample ID: Method Blank
CAS LAB NO: 141210-MB

Analyst: AN

NET CHEMISTRY SUMMARY

COMPOUND	RESULTS	UNITS	DF	PQL	MDL	METHOD	ANALYZED
Dissolved Sulfide	ND	mg/L	1	0.2	0.04	4500S ⁻³ F	05/09/14

DF: Dilution Factor

mg/L: Milligrams/Liter (ppm)

ND: Not Detected

141210

LTS Environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
805-644-4560

Report to: Freeport McMoRan O&G
c/o LTS, 704 Adirondack Ave
Ventura, CA 93003

Bill to: Freeport McMoRan O&G
700 Milam, Ste. 3100
Houston, Tx 77002
5/15

FACILITY: Platform Harvest
COLLECTOR: LTS /
PROJECT/CHARGE #: Monthly NPDES Produced Water Monitoring
RESULTS REQUIRED: normal
RESULTS BY: PHONE: _____ FAX: _____

SUBMITTED TO: Capco Analytical Services
REPORT TO: S.G. Lawry @ LTS PHONE: 644-4560
COPIES TO: Platform Supervisor (201 S Broadway, Orcutt)
Ruth Juris (email) PHONE: _____

SAMPLE NO.	SAMPLE ID	GRAB COMP.	VOLUME	DATETIME COLLECTED	PRESERV.	ANALYSES REQUESTED (METHOD)
1	NPDES Prod Water	grab	240 mL VOA	5.7.14 1000	* ice	EPA 602: Benzene MDL: 3 ug/L
2	NPDES Prod Water	grab	500 mL plastic	/600	NaOH-Zn (Dissolved sulfides (Method SM4500S-2F) (Dissolved sulfides were preserved & filtered in the field prior to submittal)	MDL: 20 ug/L
3	Ocean Water @ File Water pumps	grab	/630	/630	Conductivity Tow Pump A	Field test: 115pm 3.3 °C

Comments: * Analyse EPA 602 in 7 days - no preservative (HCl) added due to high bicarb levels.

Capco: Please report MDLs and PQs on lab report

Relinquished by:		Date: 5.8.14
Received by:		Time: 1150
Relinquished by:		Date: _____
Received by:		Time: _____

Relinquished by:		Date: _____
Received by:		Time: _____
Relinquished by:		Date: _____
Received by:		Time: _____



Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

Prepared for: Freeport McMoRan O&G
C/O: LTS environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
Attn: Steve Lawry

Report Date: May 29, 2014

Laboratory Number: 141280

Project Name: PF Harvest NPDES Produced Water Weekly

Sampled by: Client 5/14

On May 15, 2014, Capco Analytical Services, Inc. (CAS), received four (4) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
PRODUCED WATER DIFFUSER	141280-01
PRODUCED WATER DIFFUSER	141280-02*
PRODUCED WATER DIFFUSER	141280-03*
PRODUCED WATER DIFUSER	141280-04*

*HOLD PER CUSTOMER'S REQUEST

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

A handwritten signature in black ink, appearing to read "Keith C".

Keith Chin-Yuan Chang, Ph.D.
Director - Analytical Operations

cc: PF Harvest @-Orcutt
Ruth Juris @-EDT

If you have any further questions or concerns, please contact me at your convenience.
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Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Freeport McMoRan O&G (PF Harvest)
CAS LAB NO: 141280
Analyst: GM

Date Sampled: 05/14/14
Date Received: 05/15/14
Date Analyzed: 05/20/14
Sample Matrix: Water

OIL & GREASE ANALYSIS
EPA METHOD 1664

CAS LAB #	Sample ID	RESULTS (mg/L)	DF	MDL (mg/L)	PQL (mg/L)
141280-01	Produced Water Diffuser	15	1	1	5

QUALITY CONTROL DATA

141280-MB	Method Blank	ND	1	1	5
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141280

LTS ENVIRONMENTAL, INC.

704 Adirondack Avenue

Ventura, CA 93003

805-644-4560

Report to: FM O&G c/o Steve Lawry

Bill to: FM O&G

Accounts Payable

700 Milam Ste 3100

5/22
5/23

FACILITY:

COLLECTOR:

PROJECT/CHARGE #

RESULTS REQUIRED:

RESULTS BY: PHONE:

FAX:

SUBMITTED TO: Capco Analytical
Houston, TX, 77002
REPORT TO: PHONE:
FAX:COPIES TO: Platform Supervisor
201 S. Broadway
Orclut, CA 93455
PHONE:
cc: Ruth Juris

SAMPLE ID/LOCATION

GRAB/ COMP.

VOLUME

DATETIME

PRE-SERV.

ANALYSES REQUESTED (METHOD)

1

Produced Water
di Piazz

Grab

1

05/14/14
1:03P

HCl O&G (EPA 1664)

R un

2

J

1:00

Hold

3

J

1:30

Hold

4

J

12:00

Hold

Comments: Run #1: Hold 2-4 ~~Run #1: Hold 2-4~~ #1: Abs (04-6) : 1: 33(22), 2: 24(20), 3: 41(27)
LTS Environmental: Online=14.0 2,000±10.4 4: 32 (22) Field sides = 25

Relinquished by:

John J. Junis

Date: _____

Time: _____

Received by:

Relinquished by:

John J. Junis

Date: _____

Time: _____

Received by:



Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

Prepared for: Freeport McMoRan O&G
C/O: LTS environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
Attn: Steve Lawry

Report Date: May 28, 2014

Laboratory Number: 141328

Project Name: PF Harvest Weekly NPDES

Sampled by: Client 5/20

On May 22, 2014, Capco Analytical Services, Inc. (CAS), received four (4) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
D.O./NPDES	141328-01
D.O./NPDES	141328-02*
D.O./NPDES	141328-03*
D.O./NPDES	141328-04*

*HOLD PER CUSTOMER'S REQUEST

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.

Keith Chin-Yuan Chang, Ph.D.
Director - Analytical Operations

cc: PF Harvest @-Orcutt
Ruth Juris @-EDT

If you have any further questions or concerns, please contact me at your convenience. This report consists of 1 page excluding the cover letter and the Chain of Custody.

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Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Freeport McMoRan O&G (PF Harvest)
CAS LAB NO: 141328
Analyst: GM

Date Sampled: 05/20/14
Date Received: 05/22/14
Date Analyzed: 05/27/14
Sample Matrix: Water

OIL & GREASE ANALYSIS EPA METHOD 1664

CAS LAB #	Sample ID	RESULTS	DF	MDL (mg/L)	PQL (mg/L)
		(mg/L)			
141328-01	D.O./NPDES	24	1	1	5

QUALITY CONTROL DATA

141328-MB Method Blank ND 1 1 5

Chain of Custody

LTS Environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003

805-644-4560

Report to FM O&G c/o S. Lawry
14 1328

Bill to: Accounts Payable
700 Milam Ste 3100
Houston, TX 77002

FACILITY:
Hanvest

COLLECTOR:
LTS

PROJECT/CHARGE #
Weekly NPDES

RESULTS REQUIRED:
Normal

RESULTS BY: PHONE:

FAX:

SUBMITTED TO: Capco Analytical Services
REPORT TO: _____
COPIES TO: _____
Platform Supervisor
201 S. Broadway,
Oxnard, CA 93455

*6/2
6/3*

SAMPLE
NO.

SAMPLE ID/LOCATION

GRAB/
COMP.

VOLUME

DATE/TIME
COLLECTED

Pre-
serv

ANALYSES REQUESTED (METHOD)

1

D.O./NPDES

grab

1

Date: 5/20/14
Time: 2300

HCl
EPA 1664 Abs (30) IR (21)

2

grab

1

23 15

2100Q 16.6 Online: 14 IR(20)

3

grab

1

23 30

↓
Sample break

Comments: **Run #1. Hold rest.**

Relinquished by: J. Lawry Date: 5-22-14
Received by: Time: 9:55

Relinquished by: J. Lawry Date: 5/22/14
Received by: Time: 10:00

Prepared for: Freeport McMoRan O&G
C/O: LTS environmental, Inc.
704 Adirondack Avenue
Ventura, CA 93003
Attn: Steve Lawry

Report Date: June 5, 2014

Laboratory Number: 141403

Project Name: PF Harvest NPDES Produced Water weekly

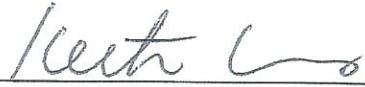
Sampled by: Client *S/28*

On May 30, 2014, Capco Analytical Services, Inc. (CAS), received four (4) samples to be analyzed. The samples were identified and assigned the laboratory ID numbers listed below:

<u>SAMPLE DESCRIPTION</u>	<u>CAS LAB NUMBER ID</u>
PRODUCED WATER	141403-01
PRODUCED WATER	141403-02*
PRODUCED WATER	141403-03*
PRODUCED WATER	141403-04*

*HOLD PER CUSTOMER'S REQUEST

By my signature below, I certify that the results contained in this laboratory report comply with applicable standards for certification by the California Department of Public Health's Environmental Laboratories Accreditation Program (ELAP), both technically and for completeness, and that, based on my inquiry of the person or persons directly responsible for performing the analyses, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete.



Keith Chin-Yuan Chang, Ph.D.
Director - Analytical Operations

cc: PF Harvest @-Orcutt
Ruth Juris @-EDT

If you have any further questions or concerns, please contact me at your convenience. This report consists of 1 page excluding the cover letter and the Chain of Custody.

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Environmental and Analytical Services-Since 1994
California State Accredited Laboratory in Accordance with ELAP Certificate # 2332

CERTIFICATE OF ANALYSIS

Client: Freeport McMoRan O&G (PF Harvest)
CAS LAB NO: 141403
Analyst: GM

Date Sampled: 05/28/14
Date Received: 05/30/14
Date Analyzed: 06/04/14
Sample Matrix: Water

OIL & GREASE ANALYSIS EPA METHOD 1664

CAS LAB #	Sample ID	RESULTS (mg/L)	DF	MDL (mg/L)	PQL (mg/L)
141403-01	Produced Water	19	1	1	5

QUALITY CONTROL DATA

141403-MB	Method Blank	ND	1	1	5
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141403

LTS ENVIRONMENTAL, INC.

704 Adirondack Avenue

Ventura, CA 93003

805-644-4560

FACILITY:

COLLECTOR:

PROJECT/CHARGE #

RESULTS REQUIRED:

RESULTS BY: PHONE:

PJ, K. Jurasik
 LTS *C. V. Bonk*
 NPDÉS Produced Water Weekly
 Standard

SUBMITTED TO: Capco Analytical
 REPORT TO: PHONE:
 COPIES TO: Platform Supervisor FAX:
 201 S. Broadway PHONE: 644-4560
 Orcutt, CA 93455 CC: Ruth Juris

SAMPLE ID/LOCATION

SAMPLE NO.

GRAB/COMP.

ANALYSES REQUESTED (METHOD)

VOLUME

DATE/TIME

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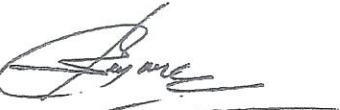
Freeport-McMoRan Oil & Gas
201 S. Broadway
Orcutt, Ca 93455

April 30, 2014

Attn: Ruth Juris

Quarterly NPDES chlorine residual on the non-contact cooling water and fire water outlets were as follows:

<u>Date/Time</u>	<u>Location</u>	<u>Total Chlorine Residual</u> (EPA 330.5)
April 29, 2014 @ 700 hrs	Platform Harvest	
April 15, 2014 @ 1600 hrs	Firewater outlet	0.15 mg/l
	Non-contact cooling water outlet	0.23 mg/l
LTS Meter S/N: 12040E195572 Technician: Mike Apple		Method Blank: < 0.02mg/l



S.G. Lawry
Environmental Specialist / LTS